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ABSTRACT

This study examined whether the reading, writing, and mathematics skill statements derived for the Praxis I Basic Skills Assessments and the Pre-Professional Skills Test (PPST) are considered by educators to be important for entry-level teachers of deaf and hard of hearing students. The study is based on a survey of 833 teachers, administrators, and teacher educators associated with institutions or programs for deaf or hard of hearing students or with teacher training institutions. All 57 skill statements of the PPST were judged to be appropriate for entry-level teachers of the hearing impaired by the total group of respondents as well as by each of the 44 identified subgroups. Appendices constitute much of the document and include the job analysis survey and cover letter, demographic distributions of respondents, detailed results of mean importance ratings by total population and subgroups, geographic distribution, and a listing of advisory committee members. (Contains 17 references.) (DB)

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RESEARCH REPORT

A TRANSPORTABILITY STUDY OF THE READING, WRITING, AND MATHEMATICS SKILLS IMPORTANT FOR TEACHERS OF DEAF AND HARD OF HEARING STUDENTS

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EC303911

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Princeton, New Jersey
November 1994

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A Transportability Study of the Reading, Writing, and Mathematics Skills Important for Teachers of Deaf and Hard of Hearing Students

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July, 1994

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Abstract

The purpose of this study was to determine if the 57 reading, writing, and mathematics skill statements derived from the test specifications for the Praxis I Basic Skills Assessments and the Pre-Professional Skills Test (PPST) are considered to be important for entry-level teachers of deaf and hard of hearing students. The skill statements were placed in a survey format, and judgments of importance were made using a 5-point rating scale. Two thousand surveys were mailed to administrators at schools and programs for deaf and hard of hearing students and to program directors at teacher training institutions throughout the United States. The administrators were asked to distribute the survey to teachers, administrators, and teacher educators at their institution and to give special consideration to the inclusion of deaf and hard of hearing faculty and staff members. In selecting the sample of institutions, every attempt was made to represent the full range of perspectives and practices in the education of deaf and hard of hearing students with respect to language and communication and program type.

Usable surveys were returned by 833 teachers, administrators, and teacher educators. A skill statement was judged to be appropriate for entry-level teachers of deaf and hard of hearing students if it was judged to have a mean importance rating of 3.00 or greater (moderately important) from the total group of respondents as well as from each of the 44 subgroup comparisons that were conducted. All 57 skill statements received mean ratings above 3.00 from the total group as well as from all relevant subgroups of respondents. It may be concluded from the survey results that the skill statements used to build test specifications for the Praxis I Basic Skills Assessments and the PPST are appropriate for entry-level teachers of deaf and hard of hearing students. That is, the content of these assessments was judged to be important. However, it cannot be overemphasized that this finding does not imply that the items or modes of assessment being used to measure these skills have been judged to be appropriate for deaf and hard of hearing candidates. Additional studies need to be conducted to determine the impact of these measures on deaf and hard of hearing candidates as well as the need for any special accommodations to ensure that candidates with this disability have an adequate opportunity to demonstrate their level of skill on these measures.

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Introduction

In light of recent national debates about the preparedness and effectiveness of teachers and with new opportunities available through advances in measurement, psychological and educational research, and technology, Educational Testing Service (ETS) has initiated the development a new teacher assessment system, **The Praxis Series: Professional Assessments for Beginning Teachers** . This new assessment system is designed to be used as part of the process implemented by states to license or certify their teachers. This new generation of assessments consists of three components.

- **Praxis I: Academic Skills Assessments** are designed to measure the reading, writing, and mathematics skills that serve as the foundation for teacher development and practice and judged to be important for teachers regardless of school level or subject matter taught. These assessments are normally taken by the prospective teacher prior to entry into a teacher education program.

- **Praxis II: Subject Assessments** measure the prospective teacher's knowledge of subject matter and pedagogy. Praxis II tests are usually taken when a candidate has completed a teacher training program and is seeking licensure in one or more states.

- **Praxis III: Classroom Performance Assessments** evaluate the skills of the beginning teacher in the classroom. These assessments are conducted several times during a prescribed time of actual classroom experience by trained local assessors using a common framework of criteria and reflecting the licensing needs of the state.

The intent of the Americans with Disabilities Act (ADA)is to increase job opportunities and access for those with disabilities. The ADA took effect on January 26, 1992. Title II of the ADA describes the responsibilities of state licensing agencies. In general, the ADA emphasizes the need for (a) access to examination and course presentation facilities, (b) examination results that accurately reflect the candidate's level of knowledge or skill rather than their impairment, and (c) administration of examinations for disabled candidates as often and in as timely a manner as administration of other examinations.

Purpose of the Study

The purpose of this study was to determine if the reading, writing, and mathematics skills that constitute the test specifications for the Praxis I Basic Skills Assessments and the Pre-Professional Skills Test (PPST) would also be judged to be important for newly licensed teachers of deaf and hard of hearing students.

Individuals who are themselves deaf or hard of hearing who want to become teachers generally encounter considerable difficulty in passing licensing and certification examinations, and in some cases, are thus unable to enter the profession of their choosing. (Martin & McCrone, 1990; Moulton, Roth, & Tao, 1987; Otis-Wilborn, Cates, Proctor, & Kinnison, 1991; Prickett, 1986; Prickett & Martin, 1991). The multiple and complex factors contributing to this problem include the relative inaccessibility of English and inequities in the educational experience for individuals who grow up deaf and severely hard of hearing. For this population, poor test scores are often not a reliable predictor of subsequent success (Willingham, et al., 1988). Although more documentation and study of the job performance of deaf teachers is needed, school administrators and teacher educators report that classroom effectiveness of deaf and hard of hearing teachers sharply contrasts their low test performance (Prickett, 1986).[1] A program of research designed to study how licensing tests could be made more equitable for deaf and hard of hearing candidates must include evaluation of: test content, use of particular kinds of English grammatical constructions and conventions, and the relative accessibility of various item types.

This study represents an important step in investigating the appropriateness of including Praxis I assessments, as part of the total process, in licensing teachers of deaf and hard of hearing students. For perhaps the first time in the history of job analysis research, the sample was selected so that particular attention could be paid to judgments made by teachers who are deaf, hard of hearing, and hearing as well as to the judgments of teachers in school settings reflecting the range of educational opportunities being provided to students who are deaf and hard of hearing. This study focused on the content being measured. Investigation of how the content is measured and the effects of those measurements on deaf and hard of hearing teacher candidates was beyond the scope of this project.

Background

A job analysis study was conducted by Rosenfeld and Tannenbaum (1991) to identify the basic skills that were judged to be important for beginning teachers. The purpose of that study was to define a domain of basic skills that a wide range of practicing professionals (e.g., teachers, school principals, teacher educators) and school-related community groups (e.g., National Parent Teacher Association, National Association of State Boards of Education) believed were important for all entry-level teachers regardless of school level or subject matter

[1]This is also reflected in the comments provided by survey respondents in a recent job analysis study of the field of teaching deaf and hard of hearing students (Rosenfeld, Mounty, and Ehringhaus, in progress). It was also expressed by Advisory Committee members who attended a two-day meeting that contributed to the development of this job analysis survey.

taught. The objective was to provide test development committees with a core of basic skills that all relevant groups agreed were important for all entry-level teachers.

The Rosenfeld and Tannenbaum study identified 59 reading, writing, and mathematics skills judged to be important for all entry-level teachers regardless of subject area or grade level taught. Judgments of importance were obtained from 2,269 teachers as well as from state-level representatives of 10 constituencies involved in teaching, teacher education, licensure and certification, and school-related community organizations. Participants responded to a mail survey that included a total of 78 statements defining specific reading, writing, and mathematics skills. The skill statements had been developed by committees of teachers, teacher educators, and school administrators. Respondents used the following rating scale to make their judgments of importance: "regardless of the subject area or grade they teach, how important is it that all entry-level teachers be able to do the following"? The scale values were: 1 (of no importance), 2 (of little importance), 3 (moderately important), 4 (very important), and 5 (extremely important).

Mean importance ratings were computed for the 10 constituencies and for the following subgroups of teacher respondents: (a) sex (female and male), (b) race/ethnicity (Black, Hispanic, and White), (c) years of teaching experience ($\leq$ 5 yrs., 6-10 yrs, 11-15 years, 16-20 years, $\geq$ 21 yrs), (d) school setting (urban, suburban, and rural), (e) school level (elementary, middle, and secondary), (f) geographic region (Northeast, Central, Southern, and Far West), and (g) subject taught (business and vocational education, social sciences, physical and biological sciences, mathematics and computer science, language arts, and special education).

The 59 reading, writing, and mathematics skills were judged to be important by the group of 10 constituencies as well by each one of the subgroups of teachers. Importance was defined as a mean rating of 3.50 (midpoint between moderately important and very important) or higher. These 59 important skills were used to develop test specifications for the Praxis I assessment and the Pre-Professional Skills Test (PPST). (The actual test specifications consist of 55 individual reading, writing, and mathematics statements. The reduced number of statements reflects the fact that some of the statements were combined during the development of the test specifications.)

Statement of the Problem

The widespread use of testing in the licensing and certification process has been problematic for candidates who are deaf and hard of hearing. The licensing of deaf and hard of hearing teachers is of particular concern because these individuals serve as valuable role models for deaf and hard of hearing students.

In developing standardized tests that are fair for deaf and hard of hearing candidates, it is especially important to consider not only what must be measured, but also how it should be measured. Many individuals who are deaf and hard of hearing experience inordinate difficulties with traditional, print-delivered standardized tests. As a group, deaf students have been found to earn lower SAT-Verbal and SAT-Math scores than the general population (Ragosta, 1987; Willingham, et al., 1988). Yet deaf college students earn mean first-year grade point averages only slightly below the grades of the general population (Braun, Ragosta, & Kaplan, 1986), suggesting that test scores may not represent the true capabilities of deaf examinees. Ragosta (1992) similarly reported poor performance by deaf and hard of hearing individuals on the verbal tests of the General Aptitude Test Battery (GATB) and the Professional and Administrative Career Examination (PACE). Although no set of accommodations has yet been established for deaf and hard of hearing examinees that eliminates the score differential between deaf and hard of hearing examinees and hearing examinees, insight into the problem may come from research indicating that deaf examinees function similarly to hearing non-native speakers of English (Mounty, 1990; Ragosta, 1992).

The study described in this report was designed to investigate whether the reading, writing, and mathematics skills measured in Praxis I would be judged to be important for teachers of deaf and hard of hearing students. The specific focus is whether or not deaf and hard of hearing teachers believe these skills are important for entry-level teachers in their field of study. This study will focus on what is being measured in Praxis I, not on how it is being measured.

Method

The 55 individual reading, writing, and mathematics statements that comprise the Praxis I Basic Skills Assessments and the PPST test specifications were carefully reviewed in light of their accessibility to deaf or hard of hearing professionals. While leaving the content intact, slight wording changes were made where necessary, and in a few cases statements were reorganized to enhance clarity. This resulted in an increase from 55 to 57 reading, writing, and mathematics skill statements, which were distributed, in survey format, to a large sample of teachers, teacher educators, and school administrators involved in the education of deaf and hard of hearing students.

The 57 statements were included as a separate section in a larger survey instrument that was to be used in the design of a new specialty area assessment being developed to assess the knowledge and skill necessary for entry-level teachers of deaf and hard of hearing students. In addition to the Basic Skills section, which is the focus of this report, there were three other content sections: Educational Foundations, Specialty Area Knowledge, and Language and Communication Skills for Deaf and Hard of Hearing Students. The survey also contained a Biographical Information section, which was to be used to describe the background of the respondents to the survey. This section included a question which requested respondents to evaluate their own sign language skill. The sign language skill rating scale used was modified from the Sign Communication Proficiency Interview (SCPI), (Newell, Caccamise, Boardman, and Holcomb, 1983; Caccamise and Newell, 1986). A copy of the survey instrument "Job Analysis of Teaching Deaf and Hard of Hearing Students" is contained in Appendix A. The results obtained from the other three content sections of the survey instrument are described in another report (Rosenfeld, Mounty, & Ehringhaus, in press).

Consistent with the original Praxis 1 job analysis study (Rosenfeld & Tannenbaum, 1991), those sampled were asked to use the following rating scale to make their judgements of importance.

> IMPORTANCE: How important is it that all entry-level teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgment.)
>
> 1. Of no importance
> 2. Of little importance
> 3. Moderately important
> 4. Very important
> 5. Extremely important

There is considerable controversy in the field associated with the challenge that licensing and certification tests present to deaf and hard of hearing teacher candidates. In the introduction to the job analysis survey, the controversy was addressed at the outset through the provision of the following information to potential respondents: "Some people question the appropriateness of current basic skills tests (reading, writing, and mathematics) for assessing deaf teachers of deaf and hard of hearing students. Others believe that these tests are appropriate for assessing all teachers of deaf and hard of hearing students, but that the method of assessment should be modified for teachers who are themselves deaf or hard of hearing. This section identifies specific skills in reading, writing, and mathematics that have been judged to be important for all newly licensed teachers, regardless of the grade level or subject matter they teach.

We would like your opinion concerning the importance of each of the skills identified in this section. Please focus on the importance of the skill or knowledge--not on how it will be assessed--when you rate each of the statements in this section as well as other sections of this survey."

Selection of the Survey Sample

The primary source for sample selection was the annual directory of the American Annals of the Deaf which provides a thorough listing of schools and programs for educating deaf and hard of hearing students in the United States and Canada and listings of postsecondary and university programs that provide training for persons interested in becoming teachers of deaf and hard of hearing students. In selecting the sample we gave careful consideration to the following issues:

- The importance of representing the full range of perspectives and practices in educating deaf and hard of hearing students with respect to language and communication

- The identification and inclusion of urban, suburban, and rural educational facilities and programs

- The representation of the major types of educational placements within which deaf and hard of hearing students are served, specifically:

    1. Residential schools (exclusively) for deaf and hard of hearing students.

    2. Day schools (exclusively) for deaf and hard of hearing students.

    3. Day class programs (self-contained, or separate, classes) for deaf and hard of hearing students within schools for hearing, nondisabled students.

    4. Resource room programs for deaf and hard of hearing students within schools for hearing, nondisabled students.

    5. Mainstream programs (deaf and hard of hearing students who are primarily educated in classes with hearing, nondisabled students and receive minimal support services).

    6. Schools or programs for students with multiple disabilities.

Because deaf persons are dramatically outnumbered by hearing persons in the field of deaf education, the intent was to identify and include as many educators who are themselves deaf or hard of hearing as possible. Some deaf or hard of hearing

educators are currently not teaching because of failure to obtain certification (frequently due to problems with standardized testing). Others have left the field for various reasons, which reportedly include frustration with and perceived oppression by hearing administrators and coworkers (Andrews, 1992; Martin & McCrone, 1990; Prickett, 1986; Prickett & Martin, 1991). Therefore, the information obtained from the Annals was supplemented with information from other sources. Members of project staff attended the 1992 convention of the National Association of the Deaf and participated in a meeting at which issue of certification of deaf and hard of hearing teachers was discussed. At that meeting, signatures and background information from deaf and hard of hearing individuals (both currently and not currently working in the field) who were interested in participating in the survey were collected. Additional names of nonworking deaf and hard of hearing educators were gathered from colleagues and from professional contacts with deaf and hard of hearing professionals.

The survey was distributed in every state, the District of Columbia, and Puerto Rico. Within each of these, all of the issues identified above were considered, and the sample included:

- A representative subset of schools and programs for deaf and hard of hearing students.
- All identifiable programs that prepare teachers of deaf and hard of hearing students.
- Individuals trained to teach deaf and hard of hearing students but not currently teaching or working in the field.

Surveys were mailed to administrators at schools and programs for deaf and hard of hearing students and to program directors at teacher training institutions. Administrators were asked to give special consideration to the inclusion of deaf and hard of hearing faculty and staff members. In determining how many surveys to send to each site, the size of the program and the number of surveys sent to other similar programs in that state were considered. Two thousand surveys were distributed in March of 1993.

Analyses

The number and percentage of survey respondents were computed for each demographic characteristic (e.g., program or school type, signing skill, ethnicity, gender). Mean importance ratings for each of the 57 skill statements were computed for the total group of respondents as well as within each of 10 biographical categories. The 10 biographical categories were: school or program worked in, current teaching position, signing skill, age became deaf, self- identification (deaf,

hard of hearing, hearing), ethnicity, gender, geographical region, years teaching deaf and hard of hearing students, and highest level of education achieved. Mean ratings were computed for each subgroup within each of the 10 biographical categories when there were at least 30 respondents for each subgroup.

Forty-four comparisons were made for each of the 57 skills included in the test specifications. This comparison of mean ratings by relevant subgroups of respondents supports the primary objective of the study by "flagging" any statements that are judged not to be important. These findings can then be used to determine the relevance or appropriateness of each of these skills for entry-level teachers of deaf and hard of hearing students. Lastly, product-moment correlations of the profile of mean ratings were computed for selected biographical categories. Correlations provide an indication of agreement within biographical categories in terms of the relative importance of the test specification statements.

In addition to the quantitative analyses described above, the survey generated qualitative data, which have also been analyzed. Space was provided at the end of the survey for comments, and respondents often inserted comments within the survey as well. Almost every completed survey had comments. All comments were entered verbatim into a separate document and subjected to a content analysis. Recurring themes were identified, and comments were organized according to those themes.

Decision Criteria for Transportability

The purpose of the job analysis study conducted by Rosenfeld and Tannenbaum (1991), upon which the current study is based, was to identify basic skill statements that were judged to be important for all entry-level teachers. The objective was to develop test specifications appropriate for all entry-level teachers regardless of subject area or school level taught. To meet this particular objective, a stringent criterion was established: each of 26 subgroups of teachers was required to have judged a basic skill statement to have a mean importance rating of 3.50 or higher. These 26 subgroups were defined by seven major demographic classifications (e.g., gender, race/ethnicity, subject area, grade level). This level of stringency was necessary to ensure, to the extent possible, that only important basic skills were included in the development of the test specifications for the Praxis I Basic Skills Assessments and the PPST.

The objective of the current study, however, was to determine the appropriateness of the 57 skill statements on which the test specifications of the Praxis I Basic Skills Assessments and the PPST are based, for an additional subgroup of teachers, namely, teachers of deaf and hard of hearing students. That is, do the important basic skills identified in the original study (Rosenfeld and Tannenbaum, 1991) transport to a population that was not included in that study? Special attention was paid to judgments made by teachers who are themselves deaf or hard of hearing

as well as to teacher judgments from the variety of schools or programs available to students who are deaf and hard of hearing. To meet this objective, for a skill statement to be judged to be appropriate, it had to receive a mean importance rating of 3.00 or greater (moderately important) from the total group as well as from each of the relevant subgroups of respondents. This standard is the same as the one used in the transportability study of the reading, writing, and mathematics skills important for entry-level vocational education teachers (Tannenbaum, Rosenfeld, and Teryek, 1993).

Results

This section of the report will present the response rate obtained with the survey instrument, a description of the respondents, the mean importance ratings obtained for each of the 55 basic skill statements, and the product-moment correlations obtained for selected biographical categories.

Response Rate

Two thousand surveys were mailed to administrators at schools and programs for deaf and hard of hearing students and to program directors at teacher training institutions. The administrators were asked to distribute the survey to teachers, administrators, and teacher educators at their institution and to give special consideration to the inclusion of deaf and hard of hearing faculty and staff members. Of the 2,000 surveys mailed, 833 were returned and coded for data analysis. The response rate was 42%. This rate is consistent with that obtained by ETS in other job analysis studies of the knowledge and skills judged to be important for entry-level teachers. Response rates generally ranging from 40 to 50 percent have been obtained in studies of teachers in a variety of subject areas (Reynolds, Tannenbaum, & Rosenfeld, 1992; Rosenfeld & Tannenbaum, 1991; Tannenbaum, Rosenfeld, & Teryek, 1993; Tannenbaum, 1992).

Demographic Background of Survey Respondents

The vast majority of respondents are: hearing, female, White, between 35 and 55 years old, and report their signing ability to be intermediate plus or higher. About 20% of the respondents are deaf or hard of hearing. This percentage is consistent with other data reporting the incidence of deaf and hard of hearing teachers working in schools for the deaf.[2] Sixty-three percent of the respondents were teachers, approximately 18 percent were supervising teachers or school administrators, and about 8 percent were teacher educators. One-third of the respondents worked in

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[2]This information was extracted from data obtained from Dr. Gerald Walter at the National Technical Institute for the Deaf at the Rochester Institute of Technology in Rochester, N.Y. These data concern various demographic characteristics of educators of deaf and hard of hearing students in the United States, including gender, race and ethnicity, and deaf/or hearing status.

residential schools for the deaf and hard of hearing. Approximately 10 percent worked in day schools for the deaf and hard of hearing, 16 percent in a day class program for deaf and hard of hearing students in a regular school, and approximately 8 percent worked in a mainstream program. A more complete summary of the background information provided by respondents is provided in Appendix B.

Overall Distribution of Mean Importance Ratings

Mean importance ratings for each of the 57 skill statements were computed for the total group of respondents. All of the mean ratings exceeded 3.50 (midpoint between moderately important and very important). The lowest rating was 3.65, and it was obtained for two of the mathematics skill statements. One was "recognize equivalent forms of a number, including square roots and powers of a number" and the second was "recognize the relationships among the variables and/or constants in an equation or formula". The highest mean rating (4.75) was obtained for the reading skill statement "determine the main idea or gist of a reading selection". There were 11 statements (19%) with mean ratings between 3.50 and 4.00, 36 statements (63%) with mean ratings between 4.01 and 4.50, and 10 statements (18%) with mean ratings above 4.50.

All of the reading statements received mean ratings of 4.00 or higher. All but one of the writing and editing skill statements received mean ratings above 4.00. The statement that did not, "present ideas in writing in an imaginative way", received a mean rating of 3.98. Eight of the eighteen mathematics statements received mean ratings above 4.00. Mean importance ratings for the total group are presented in Appendix C. The results obtained from the total group ratings indicate that all of the skill statements were judged to be important for entry-level teachers of deaf and hard of hearing students.

Mean Importance Ratings by Subgroup

For a skill statement to be considered appropriate for an entry-level teacher of deaf and hard of hearing students, a mean importance rating greater than 3.00 (moderately important) was required for each of 10 major biographical categories. Mean ratings were computed for each subgroup within each of those 10 categories for which there were at least 30 respondents. Forty-four comparisons were made for each of the 57 skill statements included in this study. The major categories of interest in this study were: self identification (deaf, hard of hearing, and hearing), level of signing skill, age became deaf or hard of hearing, teaching position, and school or program in which you work. It was felt by project staff that these were the critical or unique variables that should be considered when test content is evaluated for use in making decisions about entry-level teachers of deaf and hard of hearing students.

Additional variables such as race/ethnicity, gender, geographic region, years teaching, and highest level of education attained were also considered. These latter categories were included in the analyses even though the Rosenfeld and Tannenbaum study (1991) had used ratings from these biographical categories to identify the skills that were considered for inclusion in the Praxis I and PPST test specifications. They were considered again in this study because it was the first transportability study we had conducted with a population that includes an identifiable subgroup of individuals with a specific disability, and project staff wanted to investigate whether these variables "behaved" in the same way within this particular group of respondents.

Appendix D contains all of the comparisons for each of 44 subgroups. All of the 57 skill statements received mean importance ratings from each of the 44 subgroups that exceeded 3.00. The lowest rating obtained from any subgroup for any skill statement was 3.26. It was obtained from respondents who considered themselves to be native signers. The statement was a mathematics skill statement "draw correct conclusions". The results obtained from the analyses of the mean ratings by subgroup indicated that all 57 basic skill statements were judged to be important for entry-level teachers of deaf and hard of hearing students by all subgroups.

Correlation of Profiles of Mean Importance Ratings

Correlations of profiles of mean importance ratings are presented for the biographical categories judged by project staff to be most relevant for consideration in evaluating test content for teachers of deaf and hard of hearing students. These are: school or program in which you work, teaching position, self identification (deaf, hard of hearing, hearing), age became deaf or hard of hearing, and level of signing skills.

Table 1
Correlations of Importance Ratings of Basic Skills for Relevant Subgroups of Respondents

A: By Type of School Program

	Residential	Day School	Day Class	Resource Room	Mainstream	College
Residential						
Day School	.96					
Day Class	.94	.96				
Resource Room	.90	.89	.88			
Mainstream	.87	.91	.89	.87		
College	.94	.94	.92	.85	.86	

B: By Primary Position

	Teacher	Asst. Principal	Principal	Superintendent	Professor
Teacher					
Asst. Principal	.95				
Principal	.93	.95			
Superintendent	.88	.89	.92		
Professor	.92	.95	.95	.92	

C: By Deaf, Hard of Hearing, and Hearing Respondents

	Deaf	Hard of Hearing	Hearing
Deaf			
Hard of Hearing	.87		
Hearing	.86	.95	

Table 1 (cont.)

D: For Respondents Who Are Hearing, Were Born Deaf or Hard of Hearing, Became Deaf or Hard of Hearing Before 6 or After 6 Years of Age

	Hearing	Born Deaf/HOH	Before 6	After 6
Hearing				
Born Deaf/HOH	.80			
Before 6	.92	.86		
After 6	.92	.78	.90	

E: By Self-Reported Level of Signing Skill

	Native	Superior	Advanced	Int. Plus	Intermed.	Beginner	Don't Sign
Native							
Superior	.88						
Advanced	.87	.97					
Intermediate Plus	.86	.95	.98				
Intermediate	.87	.90	.95	.97			
Beginner	.85	.87	.92	.95	.96		
Don't Sign	.82	.83	.89	.92	.95	.92	

These results indicate that the profile of importance ratings provided by educators in the five school settings plus those provided by teacher educators were all very similar. The correlations ranged from .85 to .96. Correlations by teaching position were also high, ranging from .88 to .95. Respondents ratings were also very similar regardless of whether they were deaf, hard of hearing, or hearing. Correlations for these groups ranged from .86 to .95. Respondent ratings of importance of basic skills were also similar regardless of whether or not they were hearing or the age at which they became deaf or hard of hearing. Correlations ranged from .78 to .92. Correlations were also similar regardless of the level of signing skill reported by respondents. Correlations ranged from .82 to .98. Correlations by region of the country, by years of experience teaching deaf and hard of hearing students, and by highest level of education attained were also very high. These correlations are provided in Appendix E. The data indicate that the profile of importance ratings of the basic skill statements is similar across a variety of relevant biographical variables.

Qualitative Analysis

The survey also produced qualitative data that serves to illuminate the quantitative findings. Space was provided for comments at the end of the survey. Some respondents also wrote comments in the margins and elsewhere. Every comment was entered into a database and can be traced to its source. The following key themes that emerged from the content analysis highlight core issues that must be addressed in determining how to test the basic skills content judged to be important in this survey:

- Although the skills in this section are very important for all teachers, whether they be deaf, hard of hearing or hearing, a test measuring these skills should not be used to "weed out" deaf and hard of hearing teachers from the field.

- Although deaf and hard of hearing teachers should possess the skills included in this test, the skills may need to be evaluated differently.

- Deaf teachers may be more proficient in American Sign Language (ASL) than in English (as characterized by content of the statements in this survey), whereas their hearing colleagues are likely to be more competent in English and less skilled in ASL. An assessment of "basic skills" for teachers entering this field should account for this trade-off in some way.

Summary and Conclusions

A previous study by Rosenfeld and Tannenbaum (1991) identified reading, writing, and mathematics skills judged to be important for all entry-level teachers regardless of grade level or subject area taught. These important basic skills were used to develop test specification statements for the Praxis I Basic Skills Assessments and the PPST. The purpose of the current study was to determine if these skills were also judged to be important for entry-level teachers of deaf and hard of hearing students. Special attention was paid to the importance ratings provided by teachers who were themselves deaf and hard of hearing as well as to teachers from a variety of schools or programs that are available to deaf and hard of hearing students.

Skill statements were mailed to a sample of 2,000 educators of deaf and hard of hearing students. Useable surveys were returned by 833 educators (a return rate of 42%). Judgments of importance were made using a 5-point rating scale. A skill was considered to be important if it received a mean rating of 3.00 (moderately important) from the total group of respondents as well as from each of the 44 subgroup comparisons that were conducted. The results indicated that all 57 skill statements received mean importance ratings above 3.00 from the total group of

respondents as well as from each of the 44 subgroup comparisons that were conducted. In addition, correlational analyses indicated a high level of agreement in ratings across a variety of biographical variables.

It may be concluded from these results that the skill statements that were used to build test specifications for the Praxis I Basic Skills Assessments and Pre-Professional Skills Test were judged to be appropriate for entry-level teachers of deaf and hard of hearing students. That is, the content of these assessments is judged to be appropriate. However, it cannot be overemphasized that this finding does not imply that the items or modes of assessment being used to assess these skills have been judged to be appropriate for deaf and hard of hearing candidates. That is an entirely separate issue.

It is recommended that when the items or modes of assessment being used in the new examination are developed, that studies be conducted to evaluate the appropriateness for deaf and hard of hearing students. To the extent that the outcome of subsequent studies indicates inequities in the test for deaf and hard of hearing candidates, it then needs to be determined whether there are any accommodations that can be made to make the test more equitable without compromising the psychometric integrity of the test. In lieu of accommodations, the recommendation and/or development of alternative assessment strategies for assessing Praxis 1 skills may be in order.

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Appendix A

A3 The Survey Instrument: Job Analysis of Teaching Deaf and Hard of Hearing Students

A55 Survey Cover Letter

JOB ANALYSIS OF TEACHING DEAF AND HARD OF HEARING STUDENTS

By

Educational Testing Service
Princeton, New Jersey

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INTRODUCTION

Educational Testing Service (ETS) is developing a new generation of assessments for states to use as part of their teacher licensing process. One of the assessment areas focuses on licensing potential teachers of deaf and hard of hearing students. As part of the development process for this test, ETS has worked closely with an advisory committee of deaf and hearing teachers, teacher educators, and school administrators. This committee helped us identify the important knowledge and skills teachers need to have prior to teaching deaf and hard of hearing students. With their assistance, we developed this survey.

We are asking you to complete this survey. Your feedback will help us determine what knowledge and skills are important for newly licensed teachers of deaf and hard of hearing students. The completed surveys will help us develop new assessments. As you rate each statement in the survey, think about the knowledge or skill being described -- not how that knowledge or skill will be measured. After we analyze the results of the survey, we will work with an advisory committee of deaf, hard of hearing, and hearing professionals to develop test specifications. The specifications will be used to produce test items. The committee will also be involved in reviewing item types and individual items. We will try to develop the most equitable ways possible to test deaf, hard of hearing, and hearing prospective teachers of deaf and hard of hearing students.

This survey is composed of five sections: Basic Skills, Educational Foundations, Specialty Area Knowledge, Language and Communication Skills for Teachers of Deaf and Hard of Hearing Students, and Biographical Information. The purpose of each section is described below.

Basic Skills: Some people question the appropriateness of current basic skills tests (reading, writing, and mathematics) for assessing deaf teachers of deaf and hard of hearing students. Others believe that these tests are appropriate for all teachers of deaf and hard of hearing students, but that the method of assessment needs to be modified for those teachers who are themselves deaf or hard of hearing. This section identifies specific skills in reading, writing, and mathematics that have been judged to be important for all newly licensed teachers, regardless of the grade level or subject matter they teach. We would like your opinion concerning the importance of each of the skills and knowledge areas identified in this section. Please focus on the importance of the skill or knowledge--not on how it will be assessed--when you rate each of the statements in this section as well as in the other sections of this survey.

Educational Foundations: We are experiencing a period of educational reform in the United States. Experts are debating what knowledge all teachers should have concerning the teaching and learning process (educational foundations) and concerning the various subject matter taught in school. In this section, we want to know your opinion about the importance of this educational foundation knowledge for prospective teachers of deaf and hard of hearing children.

Specialty Area Knowledge: There is general specialty area knowledge that all teachers of deaf and hard of hearing students need to know regardless of 1) the subject area(s) and grade level(s) they teach, 2) the setting in which they teach, or 3) whether the students are deaf or hard of hearing. We want to develop a test that will assess whether or not prospective teachers of deaf and hard of hearing students have this knowledge. For the purpose of this survey, therefore, we want to know what specialty area knowledge you believe important for all teachers of deaf and hard of hearing students to have.

Language and Communication Skills for Teachers of Deaf and Hard of Hearing Students: There is a controversy within the field of teaching deaf and hard of hearing students about what communication and language skills teachers should have. Some people say that all teachers of deaf and hard of hearing students should be proficient in American Sign Language. Others say that all teachers of deaf and hard of hearing students should be proficient in some type of English-based signing (i.e., SEE II, signed English, Manual English, or PSE). In addition, there are different points of view about how proficient all teachers of deaf and hard of hearing students should be in spoken and written English. Furthermore, some people believe that the language and communication skill proficiency should be different for deaf and hearing teachers. For the purpose of this survey, we want to know your opinions concerning the importance of particular communication and language skills for newly licensed teachers of deaf and hard of hearing students.

Background Information: This section asks for some information about you. We want to gather this information to be able to describe the group of people who participated in this study. The background information will be used for research purposes, but will be treated in strict confidence.

One final important item -- we are requesting that you choose a title for this new test from the selection on the following page. We appreciate your help in this important project.

Job Analysis of Teaching Deaf and Hard of Hearing Students

Test Title

The results of this survey will be used in the design of a licensing test for prospective teachers of deaf and hard of hearing students. What should be the title of this new test? (Please choose one and circle)

1. Teaching Hearing Impaired Students
2. Teaching Deaf and Hard of Hearing Students
3. Teaching Deaf and Hearing Impaired Students
4. Other (Specify.)_____

SECTION 1

BASIC SKILLS FOR TEACHERS

SECTION 1 -- BASIC SKILLS FOR TEACHERS

Some people question the appropriateness of current basic skills tests for assessing deaf teachers of deaf and hard of hearing students. Others believe that these tests are appropriate for assessing all teachers of deaf and hard of hearing students, but that the method of assessment should be modified for teachers who are themselves deaf or hard of hearing. For the purpose of this study, we want to know your position.

IMPORTANCE: How important is it that all entry-level teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

This information will be used for two purposes -

1) to guide us in building a test for prospective teachers of deaf and hard of hearing students

2) to guide us in determining the appropriateness of other tests for prospective teachers of deaf and hard of hearing students

IMPORTANCE: How important is it that all entry-level teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

Domain A. Reading		IMPORTANCE
A1:	Understanding the content of a reading selection. Entry-level teachers should be able to:	
a.	Determine the main idea or gist of a reading selection	1 2 3 4 5
b.	Locate important ideas in a reading selection and explain why these ideas are important	1 2 3 4 5
c.	Identify accurate paraphrases or summaries of ideas in a reading selection	1 2 3 4 5
d.	Determine the supporting ideas in a reading selection: ideas, details, or facts that support the author's main idea	1 2 3 4 5
A2:	Understanding the argument of a reading selection. Entry-level teachers should be able to:	
a.	Recognize the presence of an argument in a reading selection	1 2 3 4 5
b.	Determine whether facts or ideas are relevant to an argument in a reading selection	1 2 3 4 5
c.	Identify logical assumptions on which the author bases the argument of a reading selection	1 2 3 4 5

IMPORTANCE: How <u>important</u> is it that all <u>entry-level</u> teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

Domain A. <u>Reading (cont.)</u>		**IMPORTANCE**
A3:	Understanding the implied content of a reading selection. Entry-level teachers should be able to:	
a.	Perceive what is implied rather than directly stated by the author and make inferences from the directly stated content of a reading selection	1 2 3 4 5
b.	Distinguish between what a writer presents as fact from the writer's opinions	1 2 3 4 5
c.	Recognize or predict ideas or situations that are extensions of what has been presented in a reading selection	1 2 3 4 5
A4:	Understanding the organization of a reading selection. Entry-level teachers should be able to:	
a.	Understand how a reading selection is organized (e.g., compare and contrast, problem and solution, description)	1 2 3 4 5
b.	Use the table of contents, section headings, index, and similar sections of a book to locate information	1 2 3 4 5
c.	Arrange the ideas in a reading selection into an outline, a concept map, or into some other form of graphic organizer	1 2 3 4 5
d.	Identify the relationships among ideas directly stated in the reading selection (e.g., relationships of cause and effect, and sequence)	1 2 3 4 5

IMPORTANCE: How important is it that all entry-level teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

Domain A. Reading (A4 cont.)		**IMPORTANCE**
	e. Locate the place in a reading selection where a specific kind of information can be found (e.g., Find the paragraph where the author mentions the gestation period of ducks.)	1 2 3 4 5
A5:	Understanding the way in which language is used in a reading selection. Entry-level teachers should be able to:	
	a. Recognize and identify different interpretations that can be made of the same word, sentence, paragraph, or reading selection	1 2 3 4 5
	b. Recognize how the meaning of a word, sentence, or paragraph is affected by the context in which it appears	1 2 3 4 5
	c. Understand the function of key transition indicators in a reading selection (e. g., "however," "by contrast," "in conclusion")	1 2 3 4 5
A6:	Understanding other features of a reading selection. Entry-level teachers should be able to:	
	a. Compare or combine ideas or information found in two or more sources	1 2 3 4 5
	b. Identify inconsistencies or differences in points of view in a reading selection or two or more such selections	1 2 3 4 5
	c. Specify appropriate reference sources for locating a specific kind of information (e.g., for synonyms, use a dictionary or a thesaurus; for information about the weather, use a newspaper or almanac)	1 2 3 4 5

IMPORTANCE: How important is it that all entry-level teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

			IMPORTANCE
Domain A.	Reading (A6 cont.)		
	d.	Understand reading materials with various writing styles and various difficulty levels	1 2 3 4 5
Domain B.	Writing		
B1:	Composing Skills		
	a.	Describe an event or situation	1 2 3 4 5
	b.	Delineate the steps in a process or procedure (e.g., explain how to do something)	1 2 3 4 5
	c.	Support a position for or against something	1 2 3 4 5
	d.	Analyze ideas and information in various ways, such as the following	1 2 3 4 5
		-explaining the cause and effect of something -comparing and contrasting different points of view -drawing conclusions based on evidence provided	
	e.	Provide a clear focus or thesis	1 2 3 4 5
	f.	Produce and develop supporting material that explains or illustrates key ideas	1 2 3 4 5
	g.	Organize ideas effectively and logically	1 2 3 4 5
	h.	Use vocabulary appropriate to the purpose of writing and the audience addressed	1 2 3 4 5
	i.	Present ideas in writing in an imaginative way . . .	1 2 3 4 5
	j.	Present alternative points of view in writing	1 2 3 4 5

IMPORTANCE: How important is it that all entry-level teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

Domain B.	Writing (B1 cont.)	**IMPORTANCE**
	k. Produce writing that is free of errors in grammar, punctuation, and spelling	1 2 3 4 5
B2:	Editing and Revising Skills	
	a. Recognize basic grammatical errors in standard written English, such as the following	1 2 3 4 5
	-verb forms (had brung) -verb tense (yesterday I am making) -agreement of subject and verb (one of the books are) -pronoun case (between him and I) -punctuation ("it's" when "its" is meant)	
	b. Recognize effective sentence structure free of problems. These problems might involve	1 2 3 4 5
	-misplaced modifiers -faulty subordination -faulty parallel structure	
	c. Recognize language that creates an inappropriate and/or inconsistent tone, given the intended audience and/or purpose for writing. Examples of inappropriate language might involve the following	1 2 3 4 5
	-colloquialisms or slang in a formal report -sarcasm in a letter when respect is intended	
	d. Revise sentences to correct basic problems in standard written English. Examples of such problems might include	1 2 3 4 5
	-"had went" for "had gone" -"accept" when "except" is intended	

IMPORTANCE: How important is it that all entry-level teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

		IMPORTANCE
Domain B.	Writing (B2 cont.)	
e.	Revise paragraphs to create appropriate and consistent tone, given the intended audience and purpose for writing. These paragraphs might be excerpts from	1 2 3 4 5
	-an explanation to a group of students -a proposal to a school board	
f.	Revise paragraphs to clarify meaning. The revision might address confusion resulting from such problems as	1 2 3 4 5
	-illogical transitions -unnecessary repetition -vague references -imprecise language -irrelevant ideas	
Domain C.	Mathematics	
C1:	Recognize the position of numbers in relation to each other	1 2 3 4 5
C2:	Recognize equivalent forms of a number, including square roots and powers of a number	1 2 3 4 5
C3:	Demonstrate an understanding of the characteristics of counting numbers, including prime, even or odd, and multiples or factors	1 2 3 4 5
C4:	Perform computations in problem solving situations, and adjust the result of computations as required by the problem	1 2 3 4 5
C5:	Select a sequence of operations that could be used to solve a problem; demonstrate an understanding of fundamental algorithms or procedures	1 2 3 4 5

IMPORTANCE: How <u>important</u> is it that all <u>entry-level</u> teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

Domain C.	<u>Mathematics (cont.)</u>	**<u>IMPORTANCE</u>**
C6:	Solve problems using estimation	1 2 3 4 5
C7:	Interpret and apply ratio, proportion, percent, and simple probability	1 2 3 4 5
C8:	Recognize the relationships among the variables and/or constants in an equation or formula	1 2 3 4 5
C9:	Write and/or simplify expressions using variables; write and solve simple equations and inequalities; recognize equations and inequalities representing situations presented in words	1 2 3 4 5
C10:	Read and interpret information contained in various kinds of graphs, charts, and tables	1 2 3 4 5
C11:	Recognize relationships in numerical data	1 2 3 4 5
C12:	Demonstrate an ability to analyze and summarize numerical data	1 2 3 4 5
C13:	Demonstrate an understanding of average (arithmetic mean) and range of a set of data; given the appropriate definition determine or interpret the median or mode of a set of data	1 2 3 4 5
C14:	Recognize patterns and spatial relationships	1 2 3 4 5
C15:	Determine length, perimeter, area, and volume of common two- and three-dimensional geometric figures	1 2 3 4 5
C16:	Understand and use various systems of measurement, including the metric and U. S. customary systems; make conversions within the same system or convert units from one measurement system to another using a conversion table	1 2 3 4 5

IMPORTANCE: How important is it that all entry-level teachers of deaf and hard of hearing students be able to do the following (regardless of the subject-matter area or grade level they teach)? (Circle the number on the scale that best reflects your judgement.)

1 Of no importance
2 Of little importance
3 Moderately important
4 Very important
5 Extremely important

Domain C.	Mathematics (cont.)	IMPORTANCE
C17:	Interpret sentences containing logical connectives (and, or, if-then) and quantifiers (some, all, none)	1 2 3 4 5
C18:	Draw correct conclusions; use deductive/inductive reasoning to determine whether a conclusion based on a sequence of statements is valid or invalid; identify counterexamples to inappropriate conclusions	1 2 3 4 5

Comments about this section:

SECTION 2

EDUCATIONAL FOUNDATIONS

SECTION 2 -- EDUCATIONAL FOUNDATIONS

We are experiencing a period of educational reform in the United States today. Experts are debating about what knowledge all teachers should have about the teaching and learning process (educational foundations) and about various subject areas. We want your opinion about knowledge that prospective teachers of deaf and hard of hearing children need to have in addition to knowledge specific to teaching deaf and hard of hearing students.[1]

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

This information will be used for three purposes -

1) to guide us in building a specialty area test for prospective teachers of deaf and hard of hearing students

2) to determine what prerequisite knowledge is needed prior to specializing in teaching deaf and hard of hearing students

3) to guide us in determining the appropriateness of other specialty area tests for prospective teachers of deaf and hard of hearing students

[1]**Please note that this scale is slightly different from the one used in Section 1. The scale in this section will also be used for Sections 3 and 4.**

IMPORTANCE: How <u>important</u> is it that a <u>newly licensed (certified) teacher of deaf and hard of hearing students</u> be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

		IMPORTANCE
Domain A.	Basic subject matter knowledge as represented by a liberal arts curriculum (i.e., general knowledge of math, science, humanities and social studies)	0 1 2 3 4
Domain B.	In-depth subject matter knowledge as required by the subjects to be taught (i.e., secondary math, science, social studies, language arts or multiple subjects, or other such specialty areas)	0 1 2 3 4
Domain C.	Professional knowledge of teaching and learning, principles and methods, as represented by the broader field of "regular education[2]"	0 1 2 3 4
Domain D.	Knowledge of frameworks and principles of child and/or adolescent development (e.g., social learning theories, developmental theories, personality theories)	0 1 2 3 4
Domain E.	Basic knowledge of instructional technology, particularly computers and educational software/applications	0 1 2 3 4
Domain F.	Knowledge of current issues and trends in the broader field of regular education (i.e., school reform, whole language, writing across the curriculum, etc.)	0 1 2 3 4

Comments about this section:

[2]**Regular education is that body of knowledge and skills used by all public school teachers.**

SECTION 3

SPECIALTY AREA KNOWLEDGE

SECTION 3 -- SPECIALTY AREA KNOWLEDGE

There is general specialty area knowledge that all teachers of deaf and hard of hearing students need to know regardless of 1) the subject area(s) and grade level(s) they teach, 2) the setting they teach in, or 3) whether the students are deaf or hard of hearing. We want to build a test that will assess whether or not prospective teachers of deaf and hard of hearing students have this knowledge. For the purpose of this study, therefore, we want to know which specialty area knowledge you believe is needed by all teachers of deaf and hard of hearing students.

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

To familiarize yourself with the categories and statements, you may wish to glance through Section 3 before making your rating judgments.

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

HUMAN DEVELOPMENT AND THE LEARNING PROCESS

Domain A.	Social, Cultural, Psychological Considerations in the Education of Deaf and Hard of Hearing Students	IMPORTANCE
A1:	Understand Deaf culture and history (e.g., concept of empowerment; Deaf communities as linguistic/cultural minorities; important social issues in Deaf communities; history of American Sign Language [ASL])	0 1 2 3 4
A2:	Understand issues of cultural diversity in the United States, especially as they affect the education of deaf and hard of hearing students (e.g., social and political issues that impact minority communities; effects of the larger society on the Deaf community; key issues in the bilingual-bicultural movement that impact educational policy)	0 1 2 3 4
A3:	Understand factors that affect the developmental characteristics of deaf and hard of hearing learners (e.g., diversity among deaf and hard of hearing individuals; degree of hearing ability; age of onset of deafness or hearing loss; deafness in the family)	0 1 2 3 4
A4:	Understand how aspects of social development may be impacted by educational placement (e.g., peer interaction; deaf role models; identity formation)	0 1 2 3 4
A5:	Understand issues facing families with deaf and hard of hearing children (e.g., differences for deaf and hearing parents)	0 1 2 3 4
A6:	Be familiar with resources and support networks (e.g., deaf and hearing partnerships; mental health services; genetic counselling; school based resources; national and local organizations; Deaf community resources; state and/or community resources)	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

		IMPORTANCE
Domain B.	Physiological Aspects of Deafness and Hearing Loss	
B1:	Be familiar with the structure and function of the ear as related to hearing loss and deafness	0 1 2 3 4
B2:	Have a basic understanding of the causes of deafness and how they may impact an individual's education and development	0 1 2 3 4
B3:	Have a basic understanding of the measurement of sound	0 1 2 3 4
B4:	Have a basic understanding of audiology and amplification as applied to the educational process	0 1 2 3 4
B5:	Have a basic understanding of the medical and surgical treatments of deafness and hearing loss	0 1 2 3 4
Domain C.	Language Development and Use	
C1:	Be knowledgeable about the linguistic structure of spoken languages (with focus on English)	0 1 2 3 4
C2:	Be knowledgeable about first language acquisition of spoken languages (with focus on English acquisition by hearing children)	0 1 2 3 4
C3:	Be knowledgeable about the role of literacy, literary forms, and oral history in spoken languages	0 1 2 3 4
C4:	Be familiar with current strategies for fostering language and literacy development in hearing students (e.g., whole language; process-oriented writing; English as a second language)	0 1 2 3 4
C5:	Be familiar with current research about fostering literacy development in deaf and hard of hearing students	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain C.	Language Development and Use (cont.)	**IMPORTANCE**
C6:	Be aware of traditional strategies and approaches for fostering English language development in deaf and hard of hearing students (e.g., Northampton Charts; Fitzgerald Key; Wing Symbols; Groht's Natural Language Approach)	0 1 2 3 4
C7:	Be familiar with recent and current strategies and approaches for fostering English language development in deaf and hard of hearing students (e.g., Rhode Island Curriculum)	0 1 2 3 4
C8:	Be familiar with theories about speech development in deaf and hard of hearing students	0 1 2 3 4
C9:	Be familiar with theories about development of residual hearing (aural habilitation) in deaf and hard of hearing students	0 1 2 3 4
C10:	Be knowledgeable about techniques for evaluating the speech of deaf and hard of hearing students	0 1 2 3 4
C11:	Be knowledgeable about techniques for evaluating hearing in deaf and hard of hearing students	0 1 2 3 4
C12:	Be familiar with techniques for fostering speech development in deaf and hard of hearing students	0 1 2 3 4
C13:	Be familiar with techniques for auditory training with deaf and hard of hearing students	0 1 2 3 4
C14:	Be knowledgeable about the history of signed languages (with focus on ASL)	0 1 2 3 4
C15:	Be knowledgeable about the linguistic structure of signed languages (with focus on ASL)	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

		IMPORTANCE
Domain C.	Language Development and Use (cont.)	
C16:	Be knowledgeable about ASL literature and oral history	0 1 2 3 4
C17:	Understand what it means to be literate in a signed language	0 1 2 3 4
C18:	Be knowledgeable about ASL acquisition as a first language	0 1 2 3 4
C19:	Be familiar with linguistic research on ASL	0 1 2 3 4
C20:	Be familiar with research on sign language development by deaf and hard of hearing students	0 1 2 3 4
C21:	Be knowledgeable about assessment of ASL ability in deaf and hard of hearing students	0 1 2 3 4
C22:	Be familiar with strategies for fostering ASL development in deaf and hard of hearing students	0 1 2 3 4

EDUCATIONAL POLICIES AND PRACTICES

Domain D.	Historical trends in educational policy impacting the education of deaf and hard of hearing students	
D1:	Be familiar with past and current trends in types of school placements for deaf and hard of hearing students	0 1 2 3 4
D2:	Be familiar with past and current trends in language/communication philosophies and policies in school programs for deaf and hard of hearing students	0 1 2 3 4
D3:	Be familiar with past and current trends in the employment of deaf and hard of hearing teachers in schools and programs for deaf and hard of hearing students	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

		IMPORTANCE
Domain E.	Legislation impacting the education of deaf and hard of hearing students	
E1:	Be familiar with the purpose of relevant legislation and litigation (i.e., Section 504 of the Rehabilitation Act of 1973; PL 94-142 [Education For All Handicapped Children Act, 1975, 1977, since renamed the Individuals with Disabilities Education Act or I.D.E.A.]; Education of the Deaf Act [1986, 1990]; Part H of P.L. 99-457 [re: education of children with disabilities aged 0-3]; Americans with Disabilities Act [ADA], 1990, 1991; Rowley; Brown v.s. Board of Education)	0 1 2 3 4
E2:	Be familiar with special issues in legislation for educating deaf and hard of hearing students (e.g., Least Restrictive Environment [LRE]; Inclusion; students' and parents' rights with respect to the ADA and IDEA)	0 1 2 3 4
Domain F.	Programming and Placement	
F1:	Understand the process of developing and implementing an Individualized Educational Plan (IEP)	0 1 2 3 4
F2:	Understand the process of developing and implementing a Family Service Plan	0 1 2 3 4
F3:	Understand roles and responsibilities of professionals in schools for the deaf (e.g., teachers, interpreters, counselors, speech-language pathologists, sign language specialists, audiologists)	0 1 2 3 4
F4:	Understand roles and responsibilities of professionals in mainstream settings (e.g., teachers, interpreters, counselors, speech-language pathologists, sign language specialists, audiologists)	0 1 2 3 4
F5:	Understand placement and programming issues for students with multiple disabilities	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain G.	Curriculum Planning and Instruction	**IMPORTANCE**
G1:	Understand the approach of using Special Education curricula, materials, and methods with deaf and hard of hearing students	0 1 2 3 4
G2:	Understand the approach of adapting regular education curricula, materials, and methods for deaf and hard of hearing students	0 1 2 3 4
G3:	Understand the approach of designing curricula, materials, and methods especially for deaf and hard of hearing students	0 1 2 3 4
G4:	Understand how to interpret and use test results obtained by other professionals during interdisciplinary team evaluations	0 1 2 3 4
G5:	Understand how to adapt assessments designed for hearing students	0 1 2 3 4
G6:	Understand how to use formal and informal assessment instruments developed for deaf and hard of hearing students	0 1 2 3 4
G7:	Understand how to develop and use teacher-made tests (e.g., in various subject areas)	0 1 2 3 4
G8:	Understand how to use performance based assessments (e.g., informal and formal observations, portfolios)	0 1 2 3 4
G9:	Understand how to assess students' knowledge and ability in content areas (e.g., mathematics, social studies) independent of students' English (i.e., speaking, reading, and writing) ability	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain G.	Curriculum Planning and Instruction (cont.)	IMPORTANCE
G10:	Know how to select, adapt, and implement classroom management strategies for deaf and hard of hearing students that reflect understanding of Deaf culture and cultural diversity among students' hearing and deaf families .	0 1 2 3 4
G11:	Know how to design a classroom environment that maximizes opportunities for visually oriented learning	0 1 2 3 4
G12:	Know how to adapt a classroom to minimize auditory distractions and enable students to utilize residual hearing ..	0 1 2 3 4
G13:	Know how to select and develop curricula, materials, and methods suited to individual needs and learning styles as stated in IEP goals and objectives	0 1 2 3 4
G14:	Know how to select and develop materials which present challenging subject matter at students' comfortable reading levels	0 1 2 3 4
G15:	Know how to select and develop curricula and materials that accommodate cultural diversity (for the purpose of fostering positive identity and pride in deaf and hard of hearing individuals as well as in members of various ethnic communities)	0 1 2 3 4
G16:	Know how to provide content area instruction in student's optimal language and/or communication mode	0 1 2 3 4
G17:	Know how to use computers and other available technology to foster individually paced independent learning opportunities	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain G.	Curriculum Planning and Instruction (cont.)	**IMPORTANCE**
G18:	Know how to develop and implement opportunities for diverse learning experiences (e.g., teacher directed instruction; independent learning; peer interaction; incidental learning; collaborative, team-oriented learning)	0 1 2 3 4
G19:	Know how to plan and implement instruction for deaf and hard of hearing students with multiple disabilities	
a.	Know how various disabilities (e.g., visual impairments; learning disabilities; motor impairments) affect learning needs	0 1 2 3 4
b.	Know how to be a team worker with other teachers and specialists	0 1 2 3 4
c.	Know what may be needed to modify the classroom environment (e.g., special lighting; tactile cues)	0 1 2 3 4
d.	Know how to select and use methods and materials developed for various disabilities	0 1 2 3 4
e.	Know when and how to provide opportunities for the "inclusion" of a deaf or hard of hearing student with other disabilities in activities with other deaf and hard of hearing students or with hearing students	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain H.	Communication Policies and Practices	IMPORTANCE
H1:	Be able to distinguish between languages (i.e., English; ASL) and communication systems (e.g, Manually Code English systems; Cued Speech)	0 1 2 3 4
H2:	Be knowledgeable about communication policy options for schools and programs for deaf and hard of hearing students (i.e., Oral; Cued Speech; Total Communication; Bilingual/Bicultural)	0 1 2 3 4
H3:	Be able to identify the characteristics of various sign systems used to represent English (e.g., Manual Coded English [MCE]; Rochester Method; Signing Exact English [SEE II]; Signed English [Bornstein])	0 1 2 3 4
H4:	Be able to define the characteristics of Cued Speech	0 1 2 3 4
H5:	Be able to identify the characteristics of Total Communication (TC) and the history of its implementation	0 1 2 3 4
H6:	Be able to describe different perspectives regarding speech development and aural (hearing) habilitation for deaf and hard of hearing students	0 1 2 3 4
H7:	Be able to describe different perspectives about the roles of various professionals (e.g., teachers, speech language pathologists) in facilitating speech development and aural habilitation for deaf and hard of hearing students	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students be knowledgeable about this area?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain I.	Technology and the Education of Deaf and Hard of Hearing Students	**IMPORTANCE**
I1:	Be familiar with individual/personal assistive technology (e.g., hearing aids; vibrotactile aids; assistive listening devices; cochlear implants; speech feedback displays) . . .	0 1 2 3 4
I2:	Be familiar with group/environmental assistive technology (e.g., classroom and group assistive listening and auditory training systems; visual [light] signaling devices; TTY/TDD/TT [telephone devices]; closed-caption decoders)	0 1 2 3 4
I3:	Be familiar with computer applications for lifestyle accommodations (e.g., personal computer; interactive videodisc instruction; electronic mail and information networks; computer as TTY, TDD, or TT)	0 1 2 3 4

Comments about this section:

SECTION 4

LANGUAGE AND COMMUNICATION SKILLS FOR TEACHERS OF DEAF AND HARD OF HEARING STUDENTS

SECTION 4 -- LANGUAGE AND COMMUNICATION SKILLS FOR TEACHERS OF DEAF AND HARD OF HEARING STUDENTS

There is controversy within the field of teaching deaf and hard of hearing students about which communication and language skills teachers should have. At one end of the spectrum are people who say there should be no sign language proficiency requirements. At the other extreme are people who say that all teachers of deaf and hard of hearing students should be proficient in American Sign Language. Others say that all teachers of deaf and hard of hearing student should be proficient in some type of English-based signing (i.e. SEE II, signed English, Manual English, or PSE). People also have different points of view about how proficient all teachers of deaf and hard of hearing students should be in spoken and written English. Some people believe that there should be different expectations for deaf versus hearing teachers. For the purpose of this study, we want to know your position.

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students possess this skill?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

This information will be used for two purposes -

1) to guide us in building a test for prospective teachers of deaf and hard of hearing students

2) to guide us in determining the appropriateness of other tests for prospective teachers of deaf and hard of hearing students

To familiarize yourself with the categories and statements, you may wish to glance through Section 4 before making your rating judgments.

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students possess this skill?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain A. Spoken English		**IMPORTANCE**
A1:	Demonstrate the ability to use speech for effective communication with hearing colleagues	0 1 2 3 4
A2:	Demonstrate the ability to use speech for effective communication with hearing parents of deaf and hard of hearing students	0 1 2 3 4
A3:	Demonstrate the ability to use speech for effective communication with hearing students (e.g., in a mainstream program)	0 1 2 3 4
A4:	Demonstrate the ability to use speech for effective communication with deaf and hard of hearing colleagues	0 1 2 3 4
A5:	Demonstrate the ability to use speech for effective communication with deaf and hard of hearing parents of deaf and hard of hearing students	0 1 2 3 4
A6:	Demonstrate the ability to use speech for effective communication with deaf and hard of hearing students	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students possess this skill?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain B.	American Sign Language (ASL)	**IMPORTANCE**
B1:	Demonstrate the ability to use ASL for effective communication with Deaf colleagues	0 1 2 3 4
B2:	Demonstrate the ability to use ASL for effective communication with deaf and hard of hearing students	0 1 2 3 4
B3:	Demonstrate the ability to use ASL for effective communication with Deaf parents of deaf and hard of hearing students	0 1 2 3 4
B4:	Demonstrate the ability to use ASL for effective communication with Deaf individuals in social settings	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students possess this skill?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain C.	Manual English/English-based Sign Communication	**IMPORTANCE**
C1:	Demonstrate the ability to use and understand English-based sign communication effectively with deaf and hard of hearing colleagues	0 1 2 3 4
C2:	Demonstrate the ability to use and understand English-based sign communication effectively with deaf and hard of hearing students	0 1 2 3 4
C3:	Demonstrate the ability to use and understand English-based sign communication effectively with deaf and hard of hearing parents of deaf and hard of hearing students	0 1 2 3 4
C4:	Demonstrate the ability to use and understand English-based sign communication effectively with deaf and hard of hearing individuals in social settings	0 1 2 3 4
C5:	Demonstrate the ability to use and understand Signing Exact English (SEE II)	0 1 2 3 4
C6:	Demonstrate the ability to use and understand Signed English (Bornstein)	0 1 2 3 4
C7:	Demonstrate the ability to use and understand English-based sign communication which generally follows English word order, uses ASL signs, and uses fingerspelling for English function words (sometimes called Sign English, Pidgin Sign English [PSE], or Contact Variety Signing)	0 1 2 3 4

IMPORTANCE: How important is it that a newly licensed (certified) teacher of deaf and hard of hearing students possess this skill?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

Circle your response using the scale adjacent to each task statement.

Domain D.	Cued Speech Communication	IMPORTANCE
D1:	Demonstrate the ability to use and understand Cued Speech for effective communication with deaf and hard of hearing students.	0 1 2 3 4
D2:	Demonstrate the ability to use and understand Cued Speech for effective communication with deaf and hard of hearing adults who prefer Cued Speech.	0 1 2 3 4

Comments about this section:

SECTION 5

BACKGROUND INFORMATION

Section 5 -- BACKGROUND INFORMATION

The information that you provide in this section is completely confidential. It will be used for research purposes only. Please answer the questions by circling the number that most closely describes you or your professional activities. Unless it says to do something different, please circle only one response for each question.

1. What state do you work in?

1.	Alabama	18.	Kentucky	36.	Ohio
2.	Alaska	19.	Louisiana	37.	Oklahoma
3.	Arizona	20.	Maine	38.	Oregon
4.	Arkansas	21.	Maryland	39.	Pennsylvania
5.	California	22.	Massachusetts	40.	Puerto Rico
6.	Colorado	23.	Michigan	41.	Rhode Island
7.	Connecticut	24.	Minnesota	42.	South Carolina
8.	Delaware	25.	Mississippi	43.	South Dakota
9.	District of Columbia	26.	Missouri	44.	Tennessee
		27.	Montana	45.	Texas
10.	Florida	28.	Nebraska	46.	Utah
11.	Georgia	29.	Nevada	47.	Vermont
12.	Hawaii	30.	New Hampshire	48.	Virginia
13.	Idaho	31.	New Jersey	49.	Washington
14.	Illinois	32.	New Mexico	50.	West Virginia
15.	Indiana	33.	New York	51.	Wisconsin
16.	Iowa	34.	North Carolina	52.	Wyoming
17.	Kansas	35.	North Dakota		

2. What kind of school or program do you work in?

1. Residential school for deaf and hard of hearing students.
2. Day school for deaf and hard of hearing students.
3. Day class program for deaf and hard of hearing students within a regular school building.
4. Resource room program for deaf and hard of hearing students within a regular school building.
5. Mainstream program (support services for deaf or hard of hearing students who receive all of their education in regular classes).
6. School or program for students with multiple disabilities.
7. College or university program that prepares individuals to teach deaf and hard of hearing students.
8. Other (specify)_____

3. Which of the following best describes your current primary position? (Circle only one.)

1. Teacher
2. Supervising teacher
3. Assistant principal
4. Principal
5. Assistant superintendent
6. Superintendent

7. Assistant professor
8. Associate professor
9. Professor
10. Not currently employed in education
11. Other (specify)_____

4. How many years have you been in your current position?

1. Less than three
2. Four to seven
3. Eight to eleven
4. Twelve to fifteen
5. More than fifteen

5. How many years teaching experience with deaf and hard of hearing students do you have?

1. Less than three
2. Four to seven
3. Eight to eleven
4. Twelve to fifteen
5. More than fifteen

6. How many TOTAL years of experience do you have in deaf education?
(Include: teaching, administration, teacher education, etc.)

1. Less than three
2. Four to seven
3. Eight to eleven
4. Twelve to fifteen
5. More than fifteen

7. What is your age?

1. Under 25
2. 25-34
3. 35-44
4. 45-54
5. 55-64
6. Over 64

8. What is your sex?

1. Male
2. Female

9. What is your ethnic background?

1. American Indian, Inuit, or Aleut
2. Asian, Asian American, Hawaiian Native, or Pacific Islander
3. Black or African American
4. Chicano or Mexican American
5. Puerto Rican
6. Latin American, South American, Central American, or other Hispanic
7. White
8. Other (specify)_____

10. How do you identify yourself?

1. Deaf
2. Hard of hearing
3. Hearing

11. If you are deaf or hard of hearing, circle one of the following:

1. Born deaf or hard of hearing
2. Became deaf or hard of hearing before age 2
3. Became deaf or hard of hearing between ages 2 and 6
4. Became deaf or hard of hearing between ages 7 and 10
5. Became deaf or hard of hearing between ages 11 and 15
6. Became deaf or hard of hearing between ages 16 and 20
7. Became deaf or hard of hearing at age 21 or later

12. Which of the following describes your family background while you were growing up?

A. Parents (circle)

1. Two hearing parents
2. One parent deaf, one parent hearing
3. One parent hard of hearing, one parent hearing
4. One parent deaf, one parent hard of hearing
5. Both parents hard of hearing
6. Both parents deaf

B. Siblings (write in the number of each)

1. ___Deaf sibling(s)
2. ___Hard of hearing sibling(s)
3. ___Hearing sibling(s)

13. How would you rate your own signing skills?

1. Native
2. Superior
3. Advanced
4. Intermediate plus
5. Intermediate
6. Beginner
7. Do not sign
8. Other (specify)_____

14. Which of the following <u>best</u> describes your highest educational attainment?

1. Less than a bachelor's
2. Bachelor's
3. Bachelor's + additional credits
4. Master's
5. Master's + additional credits
6. Doctorate

15. Which of the following most closely describes your undergraduate major?

1. Early childhood education
2. Elementary education
3. Deaf education
4. Special education
5. English
6. Social studies
7. Science
8. Mathematics
9. Deaf studies
10. Speech Pathology
11. Audiology
12. Psychology
13. Other (specify) _____

16. If you have a master's degree, which of the following most closely describes your major field of study?

1. Early childhood education
2. Elementary education
3. Deaf education
4. Special education
5. English
6. Social studies
7. Science
8. Mathematics
9. Deaf studies
10. Speech Pathology
11. Audiology
12. Psychology
13. Curriculum
14. Educational administration
15. Bilingual education
16. Other (specify) _____

17. If you are formally trained to teach deaf and hard of hearing students, did you obtain this training at the:

1. Bachelor's degree level
2. Master's degree level
3. Other (specify) _____

18. If you are trained to teach deaf and hard of hearing students, which program did you attend?

Alabama
1. Jacksonville State Univ.
2. Univ. of Montevallo
3. Univ. of Alabama

Arizona
4. Univ. of Arizona

Arkansas
5. Univ. of Arkansas

California
6. California St. Univ., Fresno
7. Univ. of Southern Calif.
8. California St. Univ., Northridge
9. San Diego State Univ.
10. San Francisco St. Univ.
11. San Jose State Univ.

Colorado
12. Univ. of Northern Colorado

District of Columbia
13. Gallaudet Univ.

Florida
14. Univ. of North Florida
15. Flagler College
16. Univ. of South Florida

Georgia
17. Univ. of Georgia

Idaho
18. Idaho State Univ.

Illinois
19. Northern Illinois Univ.
20. MacMurray College
21. Illinois State Univ.

Indiana
22. Ball State Univ.

Kansas
23. Univ. of Kansas Med. Ctr.

Kentucky
24. Eastern Kentucky Univ.

Louisiana
25. Southern Univ.
26. Univ. of New Orleans

Maryland
27. Western Maryland College

Massachusetts
28. Boston Univ.
29. Smith College-Clarke School

Michigan
30. Michigan State Univ.
31. Eastern Michigan Univ.

Mississippi
32. Univ. of Southern Miss.

Missouri
33. SW Missouri State Univ.
34. Fontbonne College
35. Washington Univ.-Central Inst.

Nebraska
36. Univ. of Nebraska-Lincoln
37. Univ. of Nebraska at Omaha

New Jersey
38. Trenton State College

New York
39. Canisius College-St. Mary's
40. Adelphi Univ.
41. State Univ. of NY at Geneseo
42. Hunter College, CUNY
43. Teachers College, Columbia Univ.
44. National Tech. Inst. for the Deaf

North Carolina
45. Univ. of NC at Greensboro
46. Lenoir Rhyne College-NCSD
47. Barton College

North Dakota
48. Minot State Univ.

Ohio
49. Bowling Green State Univ.
50. Univ. of Cincinnati
51. Ohio State Univ.
52. Kent State Univ.

Oklahoma
53. Univ. of Science & Arts of Oklahoma
54. Univ. of Oklahoma
55. Univ. of Tulsa

Oregon
56. Western Oregon State College
57. Lewis and Clark College

Pennsylvnia
58. Bloomsburg Univ.
59. Indiana Univ. of Pennsylvania
60. Univ. of Pittsburgh

South Carolina
61. Converse College

South Dakota
62. Augustana College

Tennessee
63. Univ. of Tennessee

Texas
64. Univ. of Texas at Austin
65. Lamar Univ.
66. Texas Women's Univ.
67. Texas Christian Univ.
68. Texas Tech Univ.
69. Stephen F. Austin St. Univ.

Washington
70. Univ. of Washington

Wisconsin
71. Univ. of Wisconsin-Milwaukee

72. Other (specify)_____

19. Which of the following most closely describes the state certifications that you have? (Circle all that apply)

1. Deaf Education
2. Speech
3. Special Education
4. Early childhood / Parent Infant
5. Elementary Education
6. Mathematics
7. Social Studies
8. Science
9. English
10. Reading
11. Teaching English as a Second Language
12. Bilingual Education
13. Others (specify)

20. Which of the following CED certificates do you have?

1. Teacher -- provisional
2. Teacher -- professional
3. Supervising Teacher
4. Psychologist
5. Administrator
6. Other (specify)

21. Did you have to take a standardized test to get teacher certification?

1. yes
2. no

22. What grade level(s) are you currently teaching? (Circle all that apply)

1. Early Intervention (Parent - infant)
2. Preschool/kindergarten
3. Primary (grades 1-5)
4. Middle (grades 6-8)
5. High School (grades 9-12)
6. College
7. Graduate school
8. Do not currently teach (supervisor/administrator)
9. Do not currently teach (retired)
10. Other (specify)_____

23. Which of the following subjects and areas are included in your current teaching assignment? (Circle all that apply.)

1. Do not currently teach
2. American Sign Language
3. English, Reading, and Writing
4. Speech and Speechreading
5. Aural Habilitation and Auditory Training
6. Mathematics
7. Social Studies
8. Science
9. Deaf Culture and History
10. Others (specify) _____
_____

Thank you for completing this inventory.

Please return it by March 19th. Use the enclosed envelope.

Survey Cover Letter

PRINCETON, N.J. 08541

February 26, 1993

Dear Colleague:

We are writing to ask for your cooperation in a project important to professionals -- teachers, administrators and teacher educators -- involved in the education of students who are deaf and hard of hearing. Educational Testing Service (ETS) is in the process of developing a new generation of assessments for states to use as part of the process of licensing teachers. Included in these assessments are measures for certifying teachers of deaf and hard of hearing students.

As part of the test development process, ETS has worked closely with an advisory committee of deaf and hearing teachers, teacher educators, and school administrators. The task of the committee was to help us identify the knowledge and skills potential teachers should have in order to be licensed to teach deaf and hard of hearing students. The enclosed survey includes the knowledge and skills this committee felt were important.

We are asking you to complete the enclosed survey.[3] We want to obtain your feedback about what knowledge and skills newly licensed teachers of deaf and hard of hearing students should have. Your feedback is extremely important. It will help guide the development of measures for assessing the knowledge and skills of prospective teachers.

It should take about one hour to complete this survey. If you have any questions, please feel free to call Judy Mounty at 609-924-7141 [TDD] or Lois Murray at 609-734-5558 [voice]. We thank you in advance for your time and attention to this most important task. A postage-paid envelope is enclosed for you to return your completed survey. **PLEASE RETURN IT BY MARCH 19TH.**

---

[3]If you are a program administrator, please complete one survey yourself and disseminate the others to members of your staff. It is very important that as many educators as possible who are deaf and hard of hearing complete this survey. Please take this into consideration when you select staff members for the survey.

Thank you for participating in this very important project. We appreciate your views and your insights.

Sincerely,

Judith Mounty

Michael Ehringhaus

Michael Rosenfeld

Appendix B

Demographic Distributions

	Percent	Number
Hearing vs. Deaf		
Hearing	76.1	634
Deaf	19.1	159
Hard of Hearing	4.2	35
Missing	0.6	5
Age Became Deaf		
Hearing	75.8	631
Born deaf or hard of hearing	12.8	107
Became deaf before the age of 6	7.4	62
Became deaf after the age of 6	16.6	138
Missing	13.3	111
Gender		
Male	18.9	157
Female	80.1	667
Missing	1.1	9
Race/Ethnicity		
White	94.0	783
People of Color	4.4	37
Missing	1.6	13
Program Type		
Residential school for the DHOH	33.3	277
Day school for the DHOH	10.4	87
Day class program for DHOH in regular school	16.1	134
Resource room program for DHOH within a regular school	6.1	51
Mainstream program	8.3	69
School or program for students with multiple disabilities	1.1	9
College/Univ. programs that prepare individuals to teach DHOH	9.0	75

	Percent	Number
Program Type (cont.)		
Other	16.0	131
Missing	7.8	65
Self-rating of Signing Skills		
Native	11.2	93
Superior	12.0	100
Advanced	28.2	235
Intermediate plus	21.4	178
Intermediate	13.8	115
Beginner	13.8	115
Do not sign	5.0	42
Missing	0.7	6
Geographic Region		
Far West	18.9	157
Southern	26.9	224
Central	23.9	199
Northeast	29.5	246
Missing	0.8	7
Current Primary Position		
Teacher	63.1	526
Supervising teacher or assistant principal	7.7	64
Principal	5.9	49
Assistant superintendent or superintendent	4.0	33
Assistant, associate, or full professor	8.4	70
Other	0.7	6
Missing	9.4	78

	Percent	Number
Age		
Under 34	18.7	156
35 - 44	44.8	373
45 - 54	26.5	221
Over 55	8.6	72
Missing	1.3	11
Number of Years Teaching DHOH		
None	1.7	14
Less than 3	9.5	79
4 - 7	17.2	143
8 - 11	17.3	144
12 - 15	16.3	136
More than 15	37.6	313
Missing	1.3	11
Highest Educational Attainment		
Less than Master's	16.6	138
Master's	13.3	111
Master's plus additional credits	58.0	483
Doctorate	11.4	95
Missing	0.7	6
Undergraduate Major		
Early childhood/elementary education	14.8	123
Deaf studies/education	22.2	185
Special education	4.9	41
English	7.7	64
Social Studies	4.4	37
Mathematics/Science	4.3	36
Speech pathology/audiology	10.3	86

	Percent	Number
Undergraduate Major (cont.)		
Psychology	4.2	35
Elementary education plus deaf education	5.3	44
Other	24.8	207
Missing	2.3	19
Graduate Major		
No Master's degree	5.0	42
Early childhood/elementary education	4.4	37
Deaf studies/education	50.1	422
Special education	7.8	65
Curriculum (English, Social Studies, Math, Science, Psych.)	2.5	21
Speech pathology/audiology	5.0	42
Education administration	2.9	24
Other	8.9	74
Missing	12.7	106

Appendix C

Mean Importance Ratings and Standard Deviations:
Total Population and Self Identification (Deaf, Hard of Hearing, Hearing)

	Total	Self Identification		
		Deaf	HOH	Hearing
SECTION 1 BASIC SKILLS FOR TEACHERS				
Domain A: Reading				
1. Understand the content of a reading selection. Entry level teachers should be able to:				
a. Determine the main idea or gist of a reading selection	4.76	4.51	4.73	4.82
b. Locate important ideas in a reading selection and explain why these ideas are important	4.67	4.38	4.76	4.73
c. Identify accurate paraphrases or summaries of ideas in a reading selection	4.47	4.19	4.58	4.53
d. Determine the supporting ideas in a reading selection: ideas/details/facts that support the author's main idea	4.52	4.24	4.58	4.58
2. Understand the argument of a reading selection. Entry-level teachers should be able to:				
a. Recognize the presence of an argument in a reading selection	4.29	4.01	4.33	4.35
b. Determine whether facts or ideas are relevant to an argument in a reading selection	4.30	4.07	4.18	4.37
c. Identify logical assumptions on which the author bases the argument or a reading selection	4.13	3.75	4.15	4.22
3. Understand the implied content of a reading selection. Entry-level teachers should be able to:				
a. Perceive what is implied rather than directly stated by the author and make inferences	4.24	3.82	4.17	4.35
b. Distinguish between what a writer presents as fact from the writer's opinions	4.38	3.83	4.40	4.52
c. Recognize or predict ideas or situations that are extensions of what has been presented in a reading selection	4.22	3.84	4.37	4.30
4. Understand the organization of a reading selection. Entry-level teachers should be able to:				
a. Understand how a reading selection is organized	4.19	4.10	4.24	4.21
b. Use the table of contents, section headings, index, and similar sections of a book to locate information	4.62	4.29	4.62	4.70
c. Arrange the ideas into an outline, a concept map, or into some other form of graphic organizer	4.26	4.04	4.43	4.31
d. Identify the relationship among ideas directly stated in a reading selection	4.42	4.22	4.49	4.47
e. Locate the place where a specific kind of information can be found	4.38	3.88	4.56	4.49
5. Understand the way in which language is used in a reading selection. Entry level teachers should be able to:				
a. Recognize and identify different interpretations that can be made	4.31	4.01	4.24	4.38
b. Recognize how the meaning of a word, sentence, or paragraph is affected by the context in which it appears	4.48	4.16	4.53	4.56
c. Understand the function of key transition indicators	4.20	3.83	4.26	4.29

	Total	Self Identification		
		Deaf	HOH	Hearing
6. Understand other features of a reading selection. Entry-level teachers should be able to:				
a. Compare or combine ideas or information found in two or more sources	4.24	3.99	4.21	4.30
b. Identify inconsistencies or differences in points of view in a reading selection or two or more such selections	4.14	3.82	4.18	4.22
c. Specify appropriate reference sources for locating a specific kind of information	4.47	4.15	4.53	4.56
d. Understand reading materials with various writing styles and various difficulty levels	4.19	3.90	4.26	4.25
Domain B: Writing				
1. Composing Skills				
a. Describe an event or situation	4.60	4.29	4.54	4.68
b. Delineate the steps in a process or procedure	4.57	4.17	4.46	4.69
c. Support a position for or against something	4.32	3.97	4.31	4.40
d. Analyze ideas and information in various ways	4.39	4.13	4.37	4.46
e. Provide a clear focus or thesis	4.33	3.99	4.29	4.42
f. Produce and develop supporting material that explains or illustrates key ideas	4.30	3.95	4.43	4.38
g. Organize ideas effectively and logically	4.58	4.20	4.60	4.68
h. Use vocabulary appropriate to the purpose of writing and the audience addressed	4.57	4.23	4.69	4.65
i. Present ideas in writing in an imaginative way	3.98	3.89	4.09	4.00
j. Present alternative points of view in writing	4.02	3.83	4.09	4.06
k. Produce writing that is free of errors in grammar, punctuation, and spelling	4.30	3.87	4.30	4.40
2. Editing and Revising Skills				
a. Recognize basic grammatical errors in standard written English	4.60	4.33	4.68	4.65
b. Recognize effective sentence structure free of problems	4.22	3.94	4.09	4.29
c. Recognize language that creates an inappropriate and/or inconsistent tone	4.23	3.84	4.21	4.32
d. Revise sentences to correct basic problems in standard written English	4.49	4.30	4.44	4.54
e. Revise paragraphs to create appropriate and consistent tone	4.08	3.87	3.97	4.14
f. Revise paragraphs to clarify meaning	4.18	3.90	4.20	4.25

	Total	Self Identification		
		Deaf	HOH	Hearing
Domain C. Mathematics				
1. Recognize the position of numbers in relation to each other	4.65	4.47	4.59	4.70
2. Recognize equivalent forms of a number, including square roots and powers of a number	3.65	3.57	3.47	3.68
3. Demonstrate an understanding of the characteristics of counting numbers	4.25	4.15	4.18	4.29
4. Perform computations in problem solving situations, and adjust the result as required	4.32	4.19	4.35	4.35
5. Select a sequence of operations that could be used to solve a problem	3.88	3.69	3.64	3.94
6. Solve problems using estimation	4.11	3.78	4.12	4.19
7. Interpret and apply ratio, proportion, percent, and simple probability	3.86	3.84	3.85	3.86
8. Recognize the relationships among the variables and/or constants in an equation or formula	3.65	3.59	3.55	3.68
9. Write and/or simplify expressions using variables	3.70	3.51	3.58	3.75
10. Read and interpret information contained in various kinds of graphs, charts, and tables	4.43	4.30	4.42	4.47
11. Recognize relationships in numerical data	4.13	4.01	4.06	4.16
12. Demonstrate an ability to analyze and summarize numerical data	3.94	3.73	3.85	4.00
13. Demonstrate an understanding of average (arithmetic mean) and range of a set of data	3.90	3.73	3.85	3.95
14. Recognize patterns and spatial relationships	4.01	3.83	3.97	4.07
15. Determine length, perimeter, area, and volume of common two- and three-dimensional geometric figures	3.81	3.72	3.94	3.82
16. Understand and use various systems of measurement, including the metric and U.S. customary systems	3.80	3.70	3.79	3.82
17. Interpret sentences containing logical connectives and quantifiers	4.01	3.55	3.97	4.12
18. Draw correct conclusions	3.82	3.40	3.59	3.93

Appendix D

Mean Importance Ratings: Section I

D3	School or Program Worked In
D7	Self Identification and Age Became Deaf
D13	Years Teaching Deaf and Hard of Hearing Students and Highest Educational Attainment
D19	Signing Skills
D25	Current Teaching Position
D31	Ethnicity, Gender, and Geographic Region

	Res.	DS	DC	RM	Main	MD	Col.	Other
SECTION 1 - BASIC SKILLS FOR TEACHERS								
Domain A: Reading								
1. Understand the content of a reading selection. Entry-level teachers should be able to:								
a. Determine the main idea or gist of a reading selection	4.73	4.67	4.79	4.88	4.79	4.56	4.85	4.74
b. Locate important ideas in a reading selection and explain why these ideas are important	4.60	4.62	4.73	4.78	4.81	4.44	4.75	4.62
c. Identify accurate paraphrases or summaries of ideas in a reading selection	4.36	4.45	4.53	4.33	4.59	4.33	4.61	4.53
d. Determine the supporting ideas in a reading selection: ideas/details/facts that support the author's main idea	4.42	4.52	4.54	4.49	4.56	4.33	4.67	4.59
2. Understand the argument of a reading selection. Entry-level teachers should be able to:								
a. Recognize the presence of an argument in a reading selection	4.19	4.21	4.33	4.04	4.32	4.44	4.48	4.44
b. Determine whether facts or ideas are relevant to an argument in a reading selection	4.24	4.29	4.28	4.10	4.31	4.22	4.43	4.50
c. Identify logical assumptions on which the author bases the argument or a reading selection	3.97	4.07	4.15	4.02	4.24	4.33	4.36	4.31
3. Understand the implied content of a reading selection. Entry-level teachers should be able to:								
a. Perceive what is implied rather than directly stated by the author and make inferences	4.09	4.21	4.38	4.20	4.35	4.22	4.35	4.36
b. Distinguish between what a writer presents as fact from the writer's opinions	4.20	4.34	4.59	4.33	4.52	4.22	4.48	4.50
c. Recognize or predict ideas or situations that are extensions of what has been presented in a reading selection	4.04	4.20	4.45	4.14	4.32	4.00	4.37	4.29
4. Understand the organization of a reading selection. Entry-level teachers should be able to:								
a. Understand how a reading selection is organized	4.11	4.14	4.34	4.02	4.20	4.33	4.31	4.24
b. Use the table of contents, section headings, index, and similar sections of a book to locate information	4.56	4.59	4.71	4.59	4.68	4.44	4.63	4.66
c. Arrange the ideas into an outline, a concept map, or into some other form of graphic organizer	4.15	4.25	4.44	4.22	4.41	4.11	4.23	4.30
d. Identify the relationship among ideas directly stated in a reading selection	4.33	4.46	4.53	4.24	4.54	4.33	4.52	4.46
e. Locate the place where a specific kind of information can be found	4.22	4.33	4.58	4.47	4.49	4.44	4.41	4.42
5. Understand the way in which language is used in a reading selection. Entry-level teachers should be able to:								
a. Recognize and identify different interpretations that can be made	4.12	4.34	4.49	4.29	4.50	4.22	4.40	4.35
b. Recognize how the meaning of a word, sentence, or paragraph is affected by the context in which it appears	4.30	4.48	4.67	4.43	4.60	4.44	4.56	4.56
c. Understand the function of key transition indicators	4.07	4.20	4.30	4.06	4.31	4.00	4.35	4.33

Res.=Residential School for the DHOH; DS=Day School for the DHOH; DC=Day Class Program for DHOH in Regular School; RM=Resource Room Program for DHOH Within a Regular School; Main.=Mainstream Program; MD=School or Program for Students with Multiple Disabilities; Col.=College /Univ. programs that prepare individuals to teach DHOH

	Res.	DS	DC	RM	Main	MD	Col	Other
6. Understand other features of a reading selection. Entry-level teachers should be able to:								
a. Compare or combine ideas or information found in two or more sources	4.12	4.21	4.33	4.22	4.37	4.00	4.45	4.24
b. Identify inconsistencies or differences in points of view in a reading selection or two or more such selections	4.03	4.11	4.15	4.08	4.32	4.00	4.32	4.20
c. Specify appropriate reference sources for locating a specific kind of information	4.34	4.51	4.62	4.45	4.60	4.33	4.50	4.55
d. Understand reading materials with various writing styles and various difficulty levels	4.03	4.24	4.32	4.18	4.32	3.89	4.23	4.28
Domain B: Writing								
1. Composing Skills								
a. Describe an event or situation	4.52	4.59	4.69	4.59	4.70	4.56	4.67	4.60
b. Delineate the steps in a process or procedure	4.48	4.57	4.67	4.51	4.71	4.33	4.67	4.65
c. Support a position for or against something	4.24	4.26	4.37	4.12	4.59	4.33	4.41	4.32
d. Analyze ideas and information in various ways	4.27	4.34	4.45	4.16	4.65	4.44	4.53	4.47
e. Provide a clear focus or thesis	4.15	4.31	4.42	4.29	4.58	4.22	4.48	4.43
f. Produce and develop supporting material that explains or illustrates key ideas	4.15	4.28	4.40	4.24	4.58	4.22	4.37	4.39
g. Organize ideas effectively and logically	4.43	4.59	4.68	4.61	4.81	4.56	4.71	4.61
h. Use vocabulary appropriate to the purpose of writing and the audience addressed	4.41	4.66	4.64	4.63	4.80	4.67	4.57	4.64
i. Present ideas in writing in an imaginative way	3.85	4.03	4.12	3.84	4.13	4.00	3.87	4.12
j. Present alternative points of view in writing	3.91	4.01	4.11	3.78	4.10	4.25	4.17	4.12
k. Produce writing that is free of errors in grammar, punctuation, and spelling	4.05	4.26	4.30	4.51	4.79	4.33	4.29	4.52
2. Editing and Revising Skills								
a. Recognize basic grammatical errors in standard written English	4.46	4.53	4.65	4.67	4.91	4.44	4.57	4.70
b. Recognize effective sentence structure free of problems	4.00	4.20	4.27	4.24	4.59	4.00	4.28	4.42
c. Recognize language that creates an inappropriate and/or inconsistent tone	4.02	4.27	4.24	4.22	4.58	4.22	4.20	4.47
d. Revise sentences to correct basic problems in standard written English	4.34	4.45	4.53	4.49	4.81	4.44	4.52	4.62
e. Revise paragraphs to create appropriate and consistent tone	3.88	4.06	4.16	4.02	4.49	4.11	4.09	4.26
f. Revise paragraphs to clarify meaning	3.96	4.13	4.27	4.18	4.57	4.22	4.21	4.39

	Res.	DS	DC	RM	Main	MD	Col.	Other
Domain C: Mathematics								
1. Recognize the position of numbers in relation to each other	4.65	4.60	4.62	4.69	4.68	4.44	4.58	4.73
2. Recognize equivalent forms of a number, including square roots and powers of a number	3.42	3.70	3.64	3.71	3.81	3.67	3.91	3.85
3. Demonstrate an understanding of the characteristics of counting numbers	4.17	4.22	4.28	4.31	4.38	4.22	4.21	4.38
4. Perform computations in problem solving situations, and adjust the result as required	4.23	4.30	4.33	4.39	4.35	4.33	4.39	4.41
5. Select a sequence of operations that could be used to solve a problem	3.76	3.82	3.95	3.86	3.91	3.78	4.09	3.98
6. Solve problems using estimation	3.98	4.07	4.23	4.02	4.28	4.11	4.24	4.15
7. Interpret and apply ratio, proportion, percent, and simple probability	3.78	3.80	3.80	3.80	4.10	4.22	3.99	3.90
8. Recognize the relationships among the variables and/or constants in an equation or formula	3.49	3.51	3.69	3.75	3.85	3.63	3.83	3.85
9. Write and/or simplify expressions using variables	3.50	3.50	3.78	3.86	3.96	3.67	3.81	3.91
10. Read and interpret information contained in various kinds of graphs, charts, and tables	4.38	4.35	4.45	4.61	4.51	4.44	4.44	4.47
11. Recognize relationships in numerical data	4.07	4.02	4.13	4.29	4.12	4.00	4.20	4.22
12. Demonstrate an ability to analyze and summarize numerical data	3.85	3.88	3.94	4.10	4.06	3.78	4.01	4.00
13. Demonstrate an understanding of average (arithmetic mean) and range of a set of data	3.79	3.75	3.81	3.96	4.09	3.89	4.00	4.13
14. Recognize patterns and spatial relationships	3.87	4.03	4.16	4.12	4.07	4.22	4.00	4.09
15. Determine length, perimeter, area, and volume of common two- and three-dimensional geometric figures	3.63	3.66	3.97	3.88	3.93	3.78	3.96	3.95
16. Understand and use various systems of measurement, including the metric and U.S. customary systems	3.71	3.65	3.89	3.84	3.87	3.78	3.84	3.91
17. Interpret sentences containing logical connectives and quantifiers	3.80	4.06	4.00	4.16	4.16	3.78	4.19	4.17
18. Draw correct conclusions	3.58	3.85	3.88	3.78	4.03	4.33	4.00	3.99

Self Identification and Age Became Deaf

	Self Identification			Age Became Deaf			
	Deaf	HOH	Hearing	Hearing	Born D/HOH	Before 6	After 6
SECTION 1 - BASIC SKILLS FOR TEACHERS							
Domain A: Reading							
1. Understand the content of a reading selection. Entry-level teachers should be able to:							
a. Determine the main idea or gist of a reading selection	4.51	4.73	4.82	4.83	4.52	4.47	4.78
b. Locate important ideas in a reading selection and explain why these ideas are important	4.38	4.76	4.73	4.74	4.37	4.41	4.83
c. Identify accurate paraphrases or summaries of ideas in a reading selection	4.19	4.58	4.53	4.53	4.14	4.24	4.74
d. Determine the supporting ideas in a reading selection: ideas/details/facts that support the author's main idea	4.24	4.58	4.58	4.58	4.20	4.31	4.61
2. Understand the argument of a reading selection. Entry-level teachers should be able to:							
a. Recognize the presence of an argument in a reading selection	4.01	4.33	4.35	4.35	3.93	4.03	4.65
b. Determine whether facts or ideas are relevant to an argument in a reading selection	4.07	4.18	4.37	4.37	4.04	4.00	4.43
c. Identify logical assumptions on which the author bases the argument or a reading selection	3.75	4.15	4.22	4.22	3.71	3.83	4.26
3. Understand the implied content of a reading selection. Entry-level teachers should be able to:							
a. Perceive what is implied rather than directly stated by the author and make inferences	3.82	4.17	4.35	4.35	3.75	3.95	4.17
b. Distinguish between what a writer presents as fact from the writer's opinions	3.83	4.40	4.52	4.53	3.78	4.03	4.25
c. Recognize or predict ideas or situations that are extensions of what has been presented in a reading selection	3.84	4.37	4.30	4.31	3.82	3.92	4.38
4. Understand the organization of a reading selection. Entry-level teachers should be able to:							
a. Understand how a reading selection is organized	4.10	4.24	4.21	4.22	4.05	4.13	4.35
b. Use the table of contents, section headings, index, and similar sections of a book to locate information	4.29	4.62	4.70	4.71	4.24	4.36	4.74
c. Arrange the ideas into an outline, a concept map, or into some other form of graphic organizer	4.04	4.43	4.31	4.31	4.06	4.02	4.58
d. Identify the relationship among ideas directly stated in a reading selection	4.22	4.49	4.47	4.48	4.17	4.31	4.50
e. Locate the place where a specific kind of information can be found	3.88	4.56	4.49	4.50	3.87	4.05	4.39
5. Understand the way in which language is used in a reading selection. Entry-level teachers should be able to:							
a. Recognize and identify different interpretations that can be made	4.01	4.24	4.38	4.38	3.99	4.07	4.30
b. Recognize how the meaning of a word, sentence, or paragraph is affected by the context in which it appears	4.16	4.53	4.56	4.56	4.15	4.31	4.35
c. Understand the function of key transition indicators	3.83	4.26	4.29	4.29	3.76	4.00	4.39

	Self Identification			Age Became Deaf			
	Deaf	HOH	Hearing	Hearing	Born D/HOH	Before 6	After 6
6. Understand other features of a reading selection. Entry level teachers should be able to:							
a. Compare or combine ideas or information found in two or more sources	3.99	4.21	4.30	4.31	3.89	4.13	4.30
b. Identify inconsistencies or differences in points of view in a reading selection or two or more such selections	3.82	4.18	4.22	4.22	3.74	3.93	4.30
c. Specify appropriate reference sources for locating a specific kind of information	4.15	4.53	4.56	4.56	4.07	4.30	4.74
d. Understand reading materials with various writing styles and various difficulty levels	3.90	4.26	4.25	4.26	3.85	3.98	4.42
Domain B: Writing							
1. Composing Skills							
a. Describe an event or situation	4.29	4.54	4.68	4.68	4.25	4.33	4.75
b. Delineate the steps in a process or procedure	4.17	4.46	4.69	4.69	4.12	4.23	4.63
c. Support a position for or against something	3.97	4.31	4.40	4.40	3.92	4.07	4.42
d. Analyze ideas and information in various ways	4.13	4.37	4.46	4.46	4.08	4.25	4.38
e. Provide a clear focus or thesis	3.99	4.29	4.42	4.42	3.88	4.20	4.33
f. Produce and develop supporting material that explains or illustrates key ideas	3.95	4.43	4.38	4.38	3.87	4.15	4.46
g. Organize ideas effectively and logically	4.20	4.60	4.68	4.68	4.12	4.36	4.67
h. Use vocabulary appropriate to the purpose of writing and the audience addressed	4.23	4.69	4.65	4.65	4.10	4.51	4.75
i. Present ideas in writing in an imaginative way	3.89	4.09	4.00	4.00	3.82	3.95	4.25
j. Present alternative points of view in writing	3.83	4.09	4.06	4.07	3.75	3.93	4.21
k. Produce writing that is free of errors in grammar, punctuation, and spelling	3.87	4.30	4.40	4.40	3.94	3.84	4.30
2. Editing and Revising Skills							
a. Recognize basic grammatical errors in standard written English	4.33	4.68	4.65	4.65	4.36	4.31	4.78
b. Recognize effective sentence structure free of problems	3.94	4.09	4.29	4.29	3.91	3.93	4.26
c. Recognize language that creates an inappropriate and/or inconsistent tone	3.84	4.21	4.32	4.32	3.82	3.92	4.30
d. Revise sentences to correct basic problems in standard written English	4.30	4.44	4.54	4.54	4.27	4.31	4.65
e. Revise paragraphs to create appropriate and consistent tone	3.87	3.97	4.14	4.15	3.79	3.89	4.21
f. Revise paragraphs to clarify meaning	3.90	4.20	4.25	4.25	3.86	3.93	4.38

	Self Identification			Age Became Deaf			
	Deaf	HOH	Hearing	Hearing	Born D/HOH	Before 6	After 6
Domain C: Mathematics							
1. Recognize the position of numbers in relation to each other	4.47	4.59	4.70	4.70	4.48	4.41	4.75
2. Recognize equivalent forms of a number, including square roots and powers of a number	3.57	3.47	3.68	3.68	3.63	3.34	3.71
3. Demonstrate an understanding of the characteristics of counting numbers	4.15	4.18	4.29	4.29	4.21	3.98	4.29
4. Perform computations in problem solving situations, and adjust the result as required	4.19	4.35	4.35	4.35	4.23	4.17	4.25
5. Select a sequence of operations that could be used to solve a problem	3.69	3.64	3.94	3.95	3.70	3.51	4.00
6. Solve problems using estimation	3.78	4.12	4.19	4.19	3.84	3.71	4.17
7. Interpret and apply ratio, proportion, percent, and simple probability	3.84	3.85	3.86	3.86	3.88	3.76	3.91
8. Recognize the relationships among the variables and/or constants in an equation or formula	3.59	3.55	3.68	3.68	3.58	3.53	3.78
9. Write and/or simplify expressions using variables	3.51	3.58	3.75	3.76	3.55	3.44	3.61
10. Read and interpret information contained in various kinds of graphs, charts, and tables	4.30	4.42	4.47	4.47	4.33	4.31	4.35
11. Recognize relationships in numerical data	4.01	4.06	4.16	4.16	4.08	3.91	4.00
12. Demonstrate an ability to analyze and summarize numerical data	3.73	3.85	4.00	4.00	3.72	3.76	3.91
13. Demonstrate an understanding of average (arithmetic mean) and range of a set of data	3.73	3.85	3.95	3.94	3.76	3.69	3.87
14. Recognize patterns and spatial relationships	3.83	3.97	4.07	4.07	3.83	3.80	4.09
15. Determine length, perimeter, area, and volume of common two- and three-dimensional geometric figures	3.72	3.94	3.82	3.82	3.71	3.76	4.00
16. Understand and use various systems of measurement, including the metric and U.S. customary systems	3.70	3.79	3.82	3.83	3.63	3.78	3.96
17. Interpret sentences containing logical connectives and quantifiers	3.55	3.97	4.12	4.12	3.51	3.68	4.08
18. Draw correct conclusions	3.40	3.59	3.93	3.93	3.29	3.51	3.88

Years Teaching Deaf and Hard of Hearing Students and Highest Educational Attainment

	Years Teaching D/HOH					Highest Educational Attainment			
	≤3	4-7	8-11	12-15	>15	<MA	MA	MA +	PhD
SECTION 1 · BASIC SKILLS FOR TEACHERS									
Domain A: Reading									
1. Understand the content of a reading selection. Entry-level teachers should be able to:									
a. Determine the main idea or gist of a reading selection	4.71	4.76	4.80	4.77	4.75	4.63	4.73	4.79	4.84
b. Locate important ideas in a reading selection and explain why these ideas are important	4.60	4.64	4.69	4.73	4.66	4.54	4.56	4.71	4.76
c. Identify accurate paraphrases or summaries of ideas in a reading selection	4.21	4.45	4.51	4.53	4.49	4.26	4.38	4.52	4.61
d. Determine the supporting ideas in a reading selection: ideas/details/facts that support the author's main idea	4.32	4.52	4.60	4.53	4.52	4.38	4.43	4.55	4.62
2. Understand the argument of a reading selection. Entry-level teachers should be able to:									
a. Recognize the presence of an argument in a reading selection	4.10	4.32	4.33	4.31	4.29	4.05	4.18	4.33	4.51
b. Determine whether facts or ideas are relevant to an argument in a reading selection	4.10	4.35	4.31	4.38	4.31	4.03	4.20	4.37	4.49
c. Identify logical assumptions on which the author bases the argument or a reading selection	3.76	4.16	4.19	4.27	4.11	3.84	4.00	4.19	4.37
3. Understand the implied content of a reading selection. Entry-level teachers should be able to:									
a. Perceive what is implied rather than directly stated by the author and make inferences	3.97	4.25	4.31	4.33	4.24	4.01	4.16	4.31	4.34
b. Distinguish between what a writer presents as fact from the writer's opinions	4.10	4.41	4.40	4.49	4.39	4.23	4.18	4.44	4.54
c. Recognize or predict ideas or situations that are extensions of what has been presented in a reading selection	3.87	4.29	4.25	4.35	4.21	3.98	4.13	4.28	4.37
4. Understand the organization of a reading selection. Entry-level teachers should be able to:									
a. Understand how a reading selection is organized	3.91	4.20	4.25	4.24	4.21	3.95	4.18	4.24	4.29
b. Use the table of contents, section headings, index, and similar sections of a book to locate information	4.58	4.64	4.61	4.64	4.62	4.57	4.45	4.67	4.66
c. Arrange the ideas into an outline, a concept map, or into some other form of graphic organizer	3.99	4.30	4.31	4.35	4.26	4.07	4.19	4.33	4.29
d. Identify the relationship among ideas directly stated in a reading selection	4.22	4.47	4.48	4.46	4.42	4.27	4.29	4.48	4.55
e. Locate the place where a specific kind of information can be found	4.13	4.40	4.45	4.43	4.38	4.32	4.30	4.41	4.42
5. Understand the way in which language is used in a reading selection. Entry-level teachers should be able to:									
a. Recognize and identify different interpretations that can be made	4.04	4.32	4.31	4.43	4.31	4.21	4.20	4.33	4.39
b. Recognize how the meaning of a word, sentence, or paragraph is affected by the context in which it appears	4.26	4.50	4.52	4.56	4.48	4.40	4.40	4.50	4.57
c. Understand the function of key transition indicators	3.90	4.21	4.23	4.19	4.27	4.02	4.04	4.27	4.32
6. Understand other features of a reading selection. Entry-level teachers should be able to:									
a. Compare or combine ideas or information found in two or more sources	3.90	4.30	4.29	4.27	4.26	4.08	4.14	4.28	4.39
b. Identify inconsistencies or differences in points of view in a reading selection or two or more such selections	3.81	4.23	4.18	4.18	4.15	3.93	4.05	4.18	4.32

	Years Teaching D/HOH					Highest Educational Attainment			
	≤3	4-7	8-11	12-15	>15	<MA	MA	MA +	PhD
c. Specify appropriate reference sources for locating a specific kind of information	4.35	4.54	4.50	4.56	4.44	4.44	4.37	4.52	4.46
d. Understand reading materials with various writing styles and various difficulty levels	3.98	4.19	4.25	4.27	4.18	4.05	4.11	4.24	4.22
Domain B: Writing									
1. Composing Skills									
a. Describe an event or situation	4.46	4.59	4.62	4.61	4.62	4.48	4.53	4.64	4.66
b. Delineate the steps in a process or procedure	4.43	4.63	4.65	4.65	4.55	4.53	4.54	4.59	4.70
c. Support a position for or against something	4.11	4.38	4.33	4.34	4.33	4.10	4.30	4.35	4.46
d. Analyze ideas and information in various ways	4.23	4.43	4.45	4.43	4.38	4.20	4.29	4.44	4.52
e. Provide a clear focus or thesis	4.20	4.41	4.36	4.39	4.30	4.07	4.28	4.39	4.46
f. Produce and develop supporting material that explains or illustrates key ideas	4.11	4.38	4.38	4.35	4.27	4.13	4.25	4.36	4.31
g. Organize ideas effectively and logically	4.45	4.61	4.65	4.63	4.56	4.47	4.51	4.62	4.64
h. Use vocabulary appropriate to the purpose of writing and the audience addressed	4.51	4.55	4.64	4.67	4.54	4.56	4.48	4.61	4.53
i. Present ideas in writing in an imaginative way	3.93	4.03	4.02	4.09	3.91	3.99	4.05	3.99	3.87
j. Present alternative points of view in writing	3.83	4.06	4.11	4.07	4.00	3.90	3.98	4.05	4.12
k. Produce writing that is free of errors in grammar, punctuation, and spelling	4.23	4.26	4.30	4.29	4.33	4.27	4.23	4.32	4.28
2. Editing and Revising Skills									
a. Recognize basic grammatical errors in standard written English	4.53	4.51	4.66	4.54	4.64	4.59	4.58	4.61	4.53
b. Recognize effective sentence structure free of problems	4.07	4.20	4.21	4.21	4.26	4.15	4.23	4.23	4.23
c. Recognize language that creates an inappropriate and/or inconsistent tone	4.04	4.26	4.29	4.22	4.23	4.23	4.19	4.24	4.19
d. Revise sentences to correct basic problems in standard written English	4.33	4.43	4.56	4.49	4.53	4.46	4.46	4.52	4.46
e. Revise paragraphs to create appropriate and consistent tone	3.75	4.08	4.13	4.18	4.12	3.99	4.07	4.12	4.05
f. Revise paragraphs to clarify meaning	3.93	4.18	4.19	4.31	4.21	4.12	4.18	4.22	4.14
Domain C: Mathematics									
1. Recognize the position of numbers in relation to each other	4.52	4.64	4.68	4.64	4.67	4.59	4.53	4.71	4.58
2. Recognize equivalent forms of a number, including square roots and powers of a number	3.61	3.61	3.62	3.68	3.69	3.71	3.65	3.62	3.72
3. Demonstrate an understanding of the characteristics of counting numbers	4.15	4.20	4.29	4.27	4.29	4.27	4.22	4.30	4.06
4. Perform computations in problem solving situations, and adjust the result as required	4.14	4.27	4.35	4.41	4.34	4.21	4.26	4.36	4.35
5. Select a sequence of operations that could be used to solve a problem	3.74	3.85	3.91	3.93	3.91	3.85	3.79	3.88	4.04

	Years Teaching D/HOH					Highest Educational Attainment			
	< 3	4-7	8-11	12-15	>15	< MA	MA	MA +	PhD
6. Solve problems using estimation	3.95	4.10	4.10	4.23	4.11	4.01	3.98	4.14	4.20
7. Interpret and apply ratio, proportion, percent, and simple probability	3.75	3.81	3.82	3.93	3.91	3.81	3.74	3.88	3.93
8. Recognize the relationships among the variables and/or constants in an equation or formula	3.50	3.69	3.63	3.75	3.66	3.69	3.55	3.66	3.68
9. Write and/or simplify expressions using variables	3.55	3.74	3.67	3.75	3.71	3.71	3.67	3.71	3.68
10. Read and interpret information contained in various kinds of graphs, charts, and tables	4.45	4.43	4.39	4.53	4.41	4.43	4.33	4.45	4.46
11. Recognize relationships in numerical data	4.01	4.11	4.08	4.19	4.17	4.02	4.08	4.16	4.19
12. Demonstrate an ability to analyze and summarize numerical data	3.82	4.01	3.92	4.07	3.89	3.89	3.87	3.97	3.94
13. Demonstrate an understanding of average (arithmetic mean) and range of a set of data	3.79	4.00	3.88	3.89	3.90	3.82	3.81	3.92	3.98
14. Recognize patterns and spatial relationships	3.88	4.04	4.09	4.15	3.96	4.06	4.00	4.04	3.86
15. Determine length, perimeter, area, and volume of common two- and three-dimensional geometric figures	3.64	3.82	3.80	3.84	3.85	3.86	3.83	3.78	3.84
16. Understand and use various systems of measurement, including the metric and U.S. customary systems	3.75	3.87	3.80	3.82	3.77	3.93	3.81	3.77	3.76
17. Interpret sentences containing logical connectives and quantifiers	3.92	4.05	4.01	4.01	4.02	3.87	3.86	4.06	4.10
18. Draw correct conclusions	3.77	3.90	3.84	3.80	3.80	3.68	3.77	3.84	3.99

Signing Skills

	Native	Sup.	Adv.	Int. +	Int.	Beg.	DNS
SECTION 1 - BASIC SKILLS FOR TEACHERS							
Domain A: Reading							
1. Understand the content of a reading selection. Entry-level teachers should be able to:							
a. Determine the main idea or gist of a reading selection	4.48	4.68	4.81	4.81	4.82	4.80	4.81
b. Locate important ideas in a reading selection and explain why these ideas are important	4.27	4.56	4.73	4.71	4.78	4.76	4.76
c. Identify accurate paraphrases or summaries of ideas in a reading selection	4.12	4.44	4.51	4.50	4.49	4.63	4.55
d. Determine the supporting ideas in a reading selection: ideas/details/facts that support the author's main idea	4.21	4.41	4.56	4.58	4.59	4.58	4.61
2. Understand the argument of a reading selection. Entry-level teachers should be able to:							
a. Recognize the presence of an argument in a reading selection	3.93	4.28	4.33	4.37	4.29	4.33	4.29
b. Determine whether facts or ideas are relevant to an argument in a reading selection	4.02	4.28	4.31	4.38	4.34	4.34	4.39
c. Identify logical assumptions on which the author bases the argument or a reading selection	3.74	4.08	4.13	4.25	4.16	4.19	4.27
3. Understand the implied content of a reading selection. Entry-level teachers should be able to:							
a. Perceive what is implied rather than directly stated by the author and make inferences	3.77	4.22	4.29	4.34	4.32	4.27	4.40
b. Distinguish between what a writer presents as fact from the writer's opinions	3.86	4.29	4.46	4.56	4.51	4.17	4.51
c. Recognize or predict ideas or situations that are extensions of what has been presented in a reading selection	3.74	4.13	4.25	4.33	4.38	4.23	4.38
4. Understand the organization of a reading selection. Entry-level teachers should be able to:							
a. Understand how a reading selection is organized	4.00	4.17	4.19	4.25	4.24	4.20	4.24
b. Use the table of contents, section headings, index, and similar sections of a book to locate information	4.22	4.58	4.71	4.75	4.59	4.62	4.62
c. Arrange the ideas into an outline, a concept map, or into some other form of graphic organizer	4.03	4.08	4.34	4.31	4.28	4.28	4.45
d. Identify the relationship among ideas directly stated in a reading selection	4.25	4.36	4.45	4.47	4.45	4.40	4.55
e. Locate the place where a specific kind of information can be found	3.84	4.33	4.46	4.51	4.41	4.41	4.52
5. Understand the way in which language is used in a reading selection. Entry-level teachers should be able to:							
a. Recognize and identify different interpretations that can be made	4.02	4.23	4.30	4.38	4.44	4.31	4.38
b. Recognize how the meaning of a word, sentence, or paragraph is affected by the context in which it appears	4.15	4.45	4.53	4.54	4.58	4.47	4.45
c. Understand the function of key transition indicators	3.79	4.17	4.25	4.33	4.24	4.08	4.36

Sup.=Superior; Adv.=Advanced; Int.+=Intermediate Plus; Int.=Intermediate; Beg.=Beginner; DNS=Do Not Sign

	Native	Sup.	Adv.	Int. +	Int.	Beg.	DNS
6. Understand other features of a reading selection. Entry-level teachers should be able to:							
a. Compare or combine ideas or information found in two or more sources	3.86	4.23	4.33	4.32	4.27	4.12	4.31
b. Identify inconsistencies or differences in points of view in a reading selection or two or more such selections	3.70	4.14	4.24	4.21	4.21	3.96	4.24
c. Specify appropriate reference sources for locating a specific kind of information	4.00	4.53	4.55	4.56	4.54	4.36	4.60
d. Understand reading materials with various writing styles and various difficulty levels	3.75	4.14	4.30	4.24	4.27	4.02	4.39
Domain B: Writing							
1. Composing Skills							
a. Describe an event or situation	4.25	4.58	4.66	4.67	4.63	4.55	4.71
b. Delineate the steps in a process or procedure	4.09	4.55	4.66	4.70	4.61	4.63	4.68
c. Support a position for or against something	3.90	4.29	4.44	4.39	4.31	4.15	4.49
d. Analyze ideas and information in various ways	4.07	4.38	4.45	4.42	4.44	4.37	4.56
e. Provide a clear focus or thesis	3.90	4.29	4.41	4.41	4.35	4.30	4.54
f. Produce and develop supporting material that explains or illustrates key ideas	3.89	4.23	4.39	4.37	4.39	4.23	4.41
g. Organize ideas effectively and logically	4.15	4.51	4.67	4.65	4.65	4.62	4.71
h. Use vocabulary appropriate to the purpose of writing and the audience addressed	4.16	4.49	4.61	4.66	4.67	4.70	4.68
i. Present ideas in writing in an imaginative way	3.76	3.96	3.99	4.02	4.09	3.98	3.98
j. Present alternative points of view in writing	3.67	4.02	4.09	4.10	4.09	3.85	4.15
k. Produce writing that is free of errors in grammar, punctuation, and spelling	3.86	4.00	4.25	4.44	4.53	4.50	4.71
2. Editing and Revising Skills							
a. Recognize basic grammatical errors in standard written English	4.31	4.36	4.55	4.69	4.79	4.73	4.88
b. Recognize effective sentence structure free of problems	3.91	4.00	4.18	4.30	4.35	4.36	4.66
c. Recognize language that creates an inappropriate and/or inconsistent tone	3.90	4.02	4.19	4.28	4.44	4.37	4.61
d. Revise sentences to correct basic problems in standard written English	4.23	4.35	4.43	4.57	4.63	4.59	4.85
e. Revise paragraphs to create appropriate and consistent tone	3.78	3.98	4.07	4.16	4.21	4.13	4.29
f. Revise paragraphs to clarify meaning	3.79	4.14	4.20	4.23	4.27	4.23	4.54

	Native	Sup.	Adv.	Int. +	Int.	Beg.	DNS
Domain C: Mathematics							
1. Recognize the position of numbers in relation to each other	4.41	4.65	4.71	4.74	4.63	4.48	4.80
2. Recognize equivalent forms of a number, including square roots and powers of a number	3.41	3.60	3.62	3.71	3.74	3.67	3.90
3. Demonstrate an understanding of the characteristics of counting numbers	4.16	4.19	4.26	4.30	4.29	4.10	4.49
4. Perform computations in problem solving situations, and adjust the result as required	4.16	4.28	4.33	4.31	4.41	4.27	4.50
5. Select a sequence of operations that could be used to solve a problem	3.63	3.90	3.88	3.98	3.89	3.77	4.10
6. Solve problems using estimation	3.77	4.15	4.15	4.12	4.15	4.05	4.35
7. Interpret and apply ratio, proportion, percent, and simple probability	3.84	3.83	3.87	3.83	3.89	3.77	4.00
8. Recognize the relationships among the variables and/or constants in an equation or formula	3.46	3.65	3.64	3.73	3.69	3.53	3.90
9. Write and/or simplify expressions using variables	3.36	3.78	3.67	3.79	3.77	3.68	3.85
10. Read and interpret information contained in various kinds of graphs, charts, and tables	4.16	4.43	4.51	4.47	4.43	4.43	4.47
11. Recognize relationships in numerical data	3.87	4.20	4.18	4.13	4.09	4.07	4.35
12. Demonstrate an ability to analyze and summarize numerical data	3.58	3.95	4.02	3.99	3.89	3.95	4.10
13. Demonstrate an understanding of average (arithmetic mean) and range of a set of data	3.72	3.87	3.92	3.97	3.88	3.83	4.10
14. Recognize patterns and spatial relationships	3.69	4.08	4.10	4.11	4.00	3.87	4.03
15. Determine length, perimeter, area, and volume of common two- and three-dimensional geometric figures	3.64	3.75	3.82	3.83	3.87	3.77	4.00
16. Understand and use various systems of measurement, including the metric and U.S. customary systems	3.58	3.79	3.87	3.88	3.70	3.75	3.88
17. Interpret sentences containing logical connectives and quantifiers	3.42	3.89	4.07	4.13	4.09	4.05	4.32
18. Draw correct conclusions	3.26	3.72	3.88	3.96	3.86	3.90	4.10

Current Teaching Position

	Teacher	Super. Teacher	Principal	Asst. Super.	Asst. Prof.
SECTION 1 - BASIC SKILLS FOR TEACHERS					
Domain A: Reading					
1. Understand the content of a reading selection. Entry-level teachers should be able to:					
a. Determine the main idea or gist of a reading selection	4.69	4.89	4.94	4.79	4.90
b. Locate important ideas in a reading selection and explain why these ideas are important	4.61	4.78	4.84	4.64	4.77
c. Identify accurate paraphrases or summaries of ideas in a reading selection	4.38	4.65	4.61	4.53	4.67
d. Determine the supporting ideas in a reading selection: ideas/details/facts that support the author's main idea	4.44	4.67	4.65	4.55	4.70
2. Understand the argument of a reading selection. Entry-level teachers should be able to:					
a. Recognize the presence of an argument in a reading selection	4.18	4.48	4.55	4.33	4.47
b. Determine whether facts or ideas are relevant to an argument in a reading selection	4.19	4.44	4.65	4.48	4.51
c. Identify logical assumptions on which the author bases the argument or a reading selection	4.02	4.18	4.41	4.15	4.39
3. Understand the implied content of a reading selection. Entry-level teachers should be able to:					
a. Perceive what is implied rather than directly stated by the author and make inferences	4.17	4.31	4.51	4.24	4.39
b. Distinguish between what a writer presents as fact from the writer's opinions	4.30	4.64	4.59	4.39	4.53
c. Recognize or predict ideas or situations that are extensions of what has been presented in a reading selection	4.17	4.39	4.35	4.03	4.36
4. Understand the organization of a reading selection. Entry-level teachers should be able to:					
a. Understand how a reading selection is organized	4.14	4.31	4.37	4.15	4.33
b. Use the table of contents, section headings, index, and similar sections of a book to locate information	4.58	4.70	4.78	4.70	4.66
c. Arrange the ideas into an outline, a concept map, or into some other form of graphic organizer	4.25	4.53	4.18	4.12	4.26
d. Identify the relationship among ideas directly stated in a reading selection	4.39	4.50	4.57	4.21	4.54
e. Locate the place where a specific kind of information can be found	4.34	4.56	4.57	4.21	4.39
5. Understand the way in which language is used in a reading selection. Entry-level teachers should be able to:					
a. Recognize and identify different interpretations that can be made	4.26	4.44	4.37	4.24	4.39
b. Recognize how the meaning of a word, sentence, or paragraph is affected by the context in which it appears	4.44	4.55	4.57	4.39	4.60
c. Understand the function of key transition indicators	4.13	4.33	4.44	4.09	4.34

	Teacher	Super. Teacher	Principal	Asst. Super.	Asst. Prof.
6. Understand other features of a reading selection. Entry level teachers should be able to:					
a. Compare or combine ideas or information found in two or more sources	4.19	4.23	4.33	4.24	4.49
b. Identify inconsistencies or differences in points of view in a reading selection or two or more such selections	4.06	4.30	4.27	4.27	4.38
c. Specify appropriate reference sources for locating a specific kind of information	4.45	4.56	4.49	4.39	4.51
d. Understand reading materials with various writing styles and various difficulty levels	4.14	4.40	4.24	4.03	4.28
Domain B: Writing					
1. Composing Skills					
a. Describe an event or situation	4.56	4.77	4.69	4.61	4.67
b. Delineate the steps in a process or procedure	4.53	4.70	4.69	4.61	4.67
c. Support a position for or against something	4.27	4.39	4.33	4.39	4.43
d. Analyze ideas and information in various ways	4.33	4.47	4.53	4.30	4.53
e. Provide a clear focus or thesis	4.25	4.52	4.45	4.33	4.47
f. Produce and develop supporting material that explains or illustrates key ideas	4.27	4.42	4.31	4.18	4.40
g. Organize ideas effectively and logically	4.54	4.66	4.71	4.48	4.74
h. Use vocabulary appropriate to the purpose of writing and the audience addressed	4.57	4.69	4.49	4.30	4.60
i. Present ideas in writing in an imaginative way	4.02	3.92	3.88	3.76	3.87
j. Present alternative points of view in writing	4.00	4.09	3.98	3.91	4.16
k. Produce writing that is free of errors in grammar, punctuation, and spelling	4.24	4.33	4.48	4.21	4.29
2. Editing and Revising Skills					
a. Recognize basic grammatical errors in standard written English	4.59	4.56	4.60	4.55	4.59
b. Recognize effective sentence structure free of problems	4.16	4.20	4.38	4.21	4.30
c. Recognize language that creates an inappropriate and/or inconsistent tone	4.18	4.28	4.23	4.18	4.24
d. Revise sentences to correct basic problems in standard written English	4.47	4.48	4.56	4.36	4.53
e. Revise paragraphs to create appropriate and consistent tone	4.04	4.17	4.13	3.82	4.16
f. Revise paragraphs to clarify meaning	4.17	4.23	4.23	3.94	4.23

	Teacher	Super. Teacher	Principal	Asst. Super.	Asst. Prof.
Domain C: Mathematics					
1. Recognize the position of numbers in relation to each other	4.63	4.77	4.78	4.67	4.54
2. Recognize equivalent forms of a number, including square roots and powers of a number	3.59	3.58	3.45	3.67	3.93
3. Demonstrate an understanding of the characteristics of counting numbers	4.24	4.22	4.29	4.21	4.21
4. Perform computations in problem solving situations, and adjust the result as required	4.26	4.33	4.43	4.39	4.41
5. Select a sequence of operations that could be used to solve a problem	3.82	3.81	3.90	4.03	4.07
6. Solve problems using estimation	4.07	4.19	4.14	4.06	4.21
7. Interpret and apply ratio, proportion, percent, and simple probability	3.79	3.86	3.92	4.15	3.97
8. Recognize the relationships among the variables and/or constants in an equation or formula	3.60	3.65	3.67	3.67	3.79
9. Write and/or simplify expressions using variables	3.68	3.63	3.65	3.58	3.76
10. Read and interpret information contained in various kinds of graphs, charts, and tables	4.43	4.41	4.49	4.30	4.47
11. Recognize relationships in numerical data	4.08	4.17	4.27	4.21	4.21
12. Demonstrate an ability to analyze and summarize numerical data	3.89	4.06	4.02	4.03	3.96
13. Demonstrate an understanding of average (arithmetic mean) and range of a set of data	3.84	3.97	3.96	3.91	3.99
14. Recognize patterns and spatial relationships	4.05	3.95	4.00	3.79	4.00
15. Determine length, perimeter, area, and volume of common two and three dimensional geometric figures	3.80	3.78	3.78	3.73	3.91
16. Understand and use various systems of measurement, including the metric and U.S. customary systems	3.80	3.69	3.71	3.85	3.80
17. Interpret sentences containing logical connectives and quantifiers	3.96	4.08	4.04	3.82	4.16
18. Draw correct conclusions	3.73	3.89	3.94	3.73	3.96

	Race		Sex		Geographic Region			
	W	POC	F	M	NE	C	S	FW
SECTION I - BASIC SKILLS FOR TEACHERS								
Domain A: Reading								
1. Understand the content of a reading selection. Entry-level teachers should be able to:								
a. Determine the main idea or gist of a reading selection	4.65	4.77	4.65	4.79	4.76	4.74	4.79	4.75
b. Locate important ideas in a reading selection and explain why these ideas are important	4.57	4.67	4.54	4.70	4.64	4.67	4.69	4.67
c. Identify accurate paraphrases or summaries of ideas in a reading selection	4.43	4.47	4.38	4.49	4.44	4.46	4.46	4.49
d. Determine the supporting ideas in a reading selection: ideas/details/facts that support the author's main idea	4.43	4.52	4.44	4.53	4.44	4.56	4.54	4.51
2. Understand the argument of a reading selection. Entry-level teachers should be able to:								
a. Recognize the presence of an argument in a reading selection	4.16	4.29	4.24	4.30	4.27	4.26	4.28	4.33
b. Determine whether facts or ideas are relevant to an argument in a reading selection	4.19	4.31	4.29	4.31	4.27	4.28	4.28	4.37
c. Identify logical assumptions on which the author bases the argument or a reading selection	3.95	4.14	4.12	4.13	4.14	4.09	4.09	4.18
3. Understand the implied content of a reading selection. Entry-level teachers should be able to:								
a. Perceive what is implied rather than directly stated by the author and make inferences	4.16	4.25	4.11	4.27	4.25	4.21	4.26	4.25
b. Distinguish between what a writer presents as fact from the writer's opinions	4.30	4.39	4.32	4.40	4.38	4.36	4.37	4.43
c. Recognize or predict ideas or situations that are extensions of what has been presented in a reading selection	4.22	4.22	4.04	4.26	4.20	4.13	4.30	4.27
4. Understand the organization of a reading selection. Entry-level teachers should be able to:								
a. Understand how a reading selection is organized	4.22	4.19	4.13	4.20	4.13	4.13	4.23	4.26
b. Use the table of contents, section headings, index, and similar sections of a book to locate information	4.65	4.62	4.44	4.66	4.67	4.61	4.59	4.63
c. Arrange the ideas into an outline, a concept map, or into some other form of graphic organizer	4.27	4.26	4.13	4.30	4.35	4.17	4.33	4.24
d. Identify the relationship among ideas directly stated in a reading selection	4.41	4.42	4.30	4.46	4.41	4.40	4.46	4.43
e. Locate the place where a specific kind of information can be found	4.30	4.38	4.14	4.44	4.38	4.40	4.38	4.37
5. Understand the way in which language is used in a reading selection. Entry-level teachers should be able to:								
a. Recognize and identify different interpretations that can be made	4.27	4.31	4.16	4.34	4.37	4.26	4.35	4.28
b. Recognize how the meaning of a word, sentence, or paragraph is affected by the context in which it appears	4.43	4.48	4.36	4.51	4.54	4.45	4.51	4.44
c. Understand the function of key transition indicators	4.24	4.20	4.03	4.24	4.18	4.18	4.27	4.20

W=White; POC=People of Color; F=Female; M=Male; NE=Northeast; C=Central; S=Southern; FW=Far West

	Race		Sex		Geographic Region			
	W	POC	F	M	NE	C	S	FW
6. Understand other features of a reading selection. Entry-level teachers should be able to:								
a. Compare or combine ideas or information found in two or more sources	4.19	4.24	4.11	4.27	4.23	4.21	4.27	4.25
b. Identify inconsistencies or differences in points of view in a reading selection or two or more such selections	4.30	4.13	4.03	4.16	4.07	4.15	4.14	4.18
c. Specify appropriate reference sources for locating a specific kind of information	4.43	4.48	4.27	4.53	4.52	4.44	4.47	4.49
d. Understand reading materials with various writing styles and various difficulty levels	4.19	4.19	4.00	4.24	4.24	4.16	4.20	4.16
Domain B: Writing								
1. Composing Skills								
a. Describe an event or situation	4.59	4.60	4.49	4.63	4.66	4.58	4.55	4.62
b. Delineate the steps in a process or procedure	4.54	4.59	4.43	4.63	4.65	4.57	4.55	4.58
c. Support a position for or against something	4.49	4.31	4.14	4.36	4.32	4.33	4.27	4.35
d. Analyze ideas and information in various ways	4.43	4.39	4.27	4.42	4.35	4.39	4.39	4.42
e. Provide a clear focus or thesis	4.38	4.33	4.22	4.36	4.37	4.31	4.29	4.36
f. Produce and develop supporting material that explains or illustrates key ideas	4.14	4.31	4.06	4.36	4.33	4.28	4.28	4.32
g. Organize ideas effectively and logically	4.46	4.59	4.43	4.62	4.63	4.57	4.59	4.56
h. Use vocabulary appropriate to the purpose of writing and the audience addressed	4.51	4.58	4.33	4.63	4.54	4.57	4.61	4.57
i. Present ideas in writing in an imaginative way	3.92	3.99	3.80	4.03	4.04	4.04	3.92	3.93
j. Present alternative points of view in writing	4.00	4.03	3.89	4.06	3.99	4.00	4.00	4.09
k. Produce writing that is free of errors in grammar, punctuation, and spelling	4.19	4.30	4.05	4.35	4.19	4.37	4.36	4.24
2. Editing and Revising Skills								
a. Recognize basic grammatical errors in standard written English	4.51	4.60	4.38	4.65	4.53	4.67	4.63	4.55
b. Recognize effective sentence structure free of problems	4.19	4.22	4.01	4.27	4.03	4.32	4.28	4.19
c. Recognize language that creates an inappropriate and/or inconsistent tone	4.32	4.22	3.93	4.30	4.08	4.30	4.17	4.30
d. Revise sentences to correct basic problems in standard written English	4.54	4.49	4.30	4.54	4.41	4.57	4.51	4.47
e. Revise paragraphs to create appropriate and consistent tone	4.30	4.08	3.95	4.12	4.03	4.10	4.06	4.13
f. Revise paragraphs to clarify meaning	4.27	4.19	4.01	4.23	4.12	4.26	4.15	4.19

	Race		Sex		Geographic Region			
	W	POC	F	M	NE	C	S	FW
Domain C: Mathematics								
1. Recognize the position of numbers in relation to each other	4.47	4.66	4.61	4.66	4.65	4.67	4.60	4.67
2. Recognize equivalent forms of a number, including square roots and powers of a number	3.44	3.66	3.77	3.62	3.39	3.73	3.63	3.76
3. Demonstrate an understanding of the characteristics of counting numbers	4.28	4.26	4.19	4.27	4.16	4.33	4.21	4.29
4. Perform computations in problem solving situations, and adjust the result as required	4.29	4.32	4.36	4.31	4.28	4.35	4.28	4.34
5. Select a sequence of operations that could be used to solve a problem	3.69	3.89	3.92	3.88	3.76	3.96	3.88	3.89
6. Solve problems using estimation	4.03	4.11	3.94	4.15	4.11	4.10	4.03	4.18
7. Interpret and apply ratio, proportion, percent, and simple probability	3.78	3.86	3.93	3.84	3.71	3.90	3.82	3.95
8. Recognize the relationships among the variables and/or constants in an equation or formula	3.60	3.66	3.69	3.65	3.52	3.67	3.62	3.77
9. Write and/or simplify expressions using variables	3.69	3.70	3.64	3.71	3.61	3.74	3.71	3.72
10. Read and interpret information contained in various kinds of graphs, charts, and tables	4.40	4.43	4.34	4.46	4.46	4.46	4.41	4.42
11. Recognize relationships in numerical data	4.11	4.13	4.09	4.14	4.06	4.16	4.08	4.19
12. Demonstrate an ability to analyze and summarize numerical data	4.00	3.94	3.90	3.95	3.91	3.99	3.86	3.98
13. Demonstrate an understanding of average (arithmetic mean) and range of a set of data	3.80	3.90	3.93	3.89	3.80	3.99	3.86	3.91
14. Recognize patterns and spatial relationships	4.06	4.02	3.83	4.07	4.01	4.02	3.99	4.04
15. Determine length, perimeter, area, and volume of common two- and three-dimensional geometric figures	3.66	3.82	3.80	3.81	3.70	3.81	3.80	3.88
16. Understand and use various systems of measurement, including the metric and U.S. customary systems	3.63	3.81	3.73	3.82	3.78	3.78	3.84	3.80
17. Interpret sentences containing logical connectives and quantifiers	3.94	4.01	3.84	4.05	3.95	4.01	3.96	4.07
18. Draw correct conclusions	3.86	3.82	3.78	3.83	3.62	3.89	3.81	3.90

Appendix E

Correlation of Importance Ratings of Basic Skills
by Relevant Subgroups

Geographic Region

	Far West	Southern	Central	Northeast
Far West	1.00			
Southern	.95	1.00		
Central	.97	.97	1.00	
Northeast	.97	.97	.98	1.00

Number of Years Teaching Deaf and Hard of Hearing Students

	<3 years	4-7	8-11	12-15	15+ years
<3 years	1.00				
4-7 years	.93	1.00			
8-11 years	.93	.99	1.00		
12-15 years	.92	.98	.98	1.00	
15+ years	.93	.97	.99	.97	1.00

Level of Highest Educational Attainment

	< Masters	Masters	Masters +	Ph.D
< Masters	1.00			
Masters	.94	1.00		
Masters +	.92	.97	1.00	
Ph.D.	.81	.91	.96	1.00

Appendix F

States Within Each of the Four NASDTEC Geographic Regions

Far West

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
New Mexico
Nevada
Oregon
Utah
Washington
Wyoming

Southern

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Mississippi
North Carolina
South Carolina
Tennessee
Texas
Virginia
West Virginia

Central

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
Oklahoma
South Dakota
Wisconsin

Northeast

Connecticut
Delaware
District of Columbia
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Appendix G

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